DOCUMENT RESUME

ED 373 800 IR 055 162

TITLE	Libraries and Their Role in the Information Infrastructure. Hearing on Examining the Role of Libraries in Developing America's New Information Infrastructure, before the Subcommittee on Education, Arts and Humanities of the Committee on Labor and Human Resources. United States Senate, One Hundred Third Congress, Second Session.
INSTITUTION	Congress of the U.S., Washington, D.C. Senate Committee on Labor and Human Resourc .
REPORT NO	ISBN-0-16-044465-9; Senate-Hrg-103-569
PUB DATE	19 Apr 94
NOTE	100p.
AVAILABLE FROM	U.S. Government Printing Office, Superintendent of Documents, Congressional Sales Office, Washington, DC 20402.
PUB TYPE	Legal/Legislative/Regulatory Materials (090)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*Access to Information; *Computer Networks; Futures (of Society); Government Publications; Hearings; Information Dissemination; *Information Networks; Information Technology; *Public Libraries; Telecommunications
IDENTIFIERS	*Internet; *National Information Infrastructure

ABSTRACT

The purpose of this congressional hearing was to determine how libraries fit into the emerging national information infrastructure (NII). Testimony and prepared statements include those from Howard F. McGinn, Director, Emporia Public Library, Emporia, Kansas; James H. Billington, Librarian of Congress, Library of Congress, Washington D.C., accompanied by Nat Gadson, Donald Hiller, Betsy Miller, and Rubin Medina; Hardy R. Franklin, President, American Library Association, and Director, Washington, D.C. Public Library; Agnes M. Griffen, Montgomery County Public Library, Rockville, Maryland; James Ubel, Director, Shawnee Library System, Carterville, Illinois; Grant P. Thompson, Executive Director, Libraries for the Future, New York, New York; Donald Pascarella, General Manager, Harron Communications, Frazer, Pennsylvania; James S. Fogarty, Director of Curriculum and Technology, Project Consultant to Commonwealth Libraries, Schuylkill Intermediate Unit, Mar Lin, Pennsylvania; Beverly Choltco-Devlin, Director, Morrisville Public Library, Morrisville, New York; and Jeanne H. Simon, Chairperson, U.S. National Commission on Libraries and Information Science. (JLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

S. HRG. 103-569

LIBRARIES AND THEIR ROLE IN THE INFORMATION INFRASTRUCTURE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 373 800

HEARING

BEFORE THE

SUBCOMMITTEE ON EDUCATION, ARTS AND HUMANITIES

OF THE

COMMITTEE ON LABOR AND HUMAN RESOURCES UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

ON

EXAMINING THE ROLE OF LIBRARIES IN DEVELOPING AMERICA'S NEW INFORMATION INFRASTRUCTURE

APRIL 19, 1994

Printed for the use of the Committee on Labor and Human Resources

U.S. GOVERNMENT PRINTING OFFICE
80-218 CC WASHINGTON : 1994

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-044465-9

IR 055 162

BEST COPY AVAILABLE

80-218 O - 94 - 1

COMMITTEE ON LABOR AND HUMAN RESOURCES

EDWARD M. KENNEDY, Massachusetts, *Chairman*

CLAIBORNE PELL, Rhode Island
HOWARD M. METZENBAUM, Ohio
CHRISTOPHER J. DODD, Connecticut
PAUL SIMON, Illinois
TOM HARKIN, Iowa
BARBARA A. MIKULSKI, Maryland
JEFF BINGAMAN, New Mexico
PAUL D. WELLSTONE, Minnesota
HARRIS WOFFORD, Pennsylvania
NANCY LANDON KASSEBAUM, Kansas
JAMES M. JEFFORDS, Vermont
DAN COATS, Indiana
JUDD GREGG, New Hampshire
STROM THURMOND, South Carolina
ORRIN G. HATCH, Utah
DAVE DURENBERGER, Minnesota

NICK LITTLEFIELD, *Staff Director and Chief Counsel*
SUSAN K. HATTAN, *Minority Staff Director*

SUBCOMMITTEE ON EDUCATION, ARTS AND HUMANITIES

CLAIBORNE PELL, Rhode Island, *Chairman*

HOWARD M. METZENBAUM, Ohio
CHRISTOPHER J. DODD, Connecticut
PAUL SIMON, Illinois
BARBARA A. MIKULSKI, Maryland
JEFF BINGAMAN, New Mexico
EDWARD M. KENNEDY, Massachusetts
PAUL D. WELLSTONE, Minnesota
HARRIS WOFFORD, Pennsylvania
TOM HARKIN, Iowa
JAMES M. JEFFORDS, Vermont
NANCY LANDON KASSEBAUM, Kansas
DAN COATS, Indiana
JUDD GREGG, New Hampshire
STROM THURMOND, South Carolina
ORRIN G. HATCH, Utah
DAVE DURENBERGER, New Mexico

DAVID V. EVANS, *Staff Director*
PAM DEVITT, *Minority Professional Staff*

CONTENTS

STATEMENTS

TUESDAY, APRIL 19, 1994

	Page
McGinn, Howard F.; director, Emporia Public Library, Emporia, KA	2
Prepared statement	42
Billington, James H., Librarian of Congress, Library of Congress, Washington, DC; accompanied by Nat Gadson, Donald Hiller, Betsy Miller, and Rubin Medina	5
Prepared statement	44
Franklin, Hardy R., president, American Library Association, and director, Washington, DC, Public Library; Agnes M. Griffen, Montgomery County Public Library, Rockville, MD; and James Ubel, director, Shawnee Library System, Carterville, IL	18
Prepared statements of:	
Mr. Franklin	50
Ms. Griffen	59
Thompson, Grant P., executive director, Libraries for the Future, New York, NY; Donald Pascarella, general manager, Harron Communications, Frazer, PA; and James S. Fogarty, director of curriculum and technology, Project Consultant to Commonwealth Libraries, Schuylkill Intermediate Unit, Mar Lin, PA	28
Prepared statements of:	
Mr. Thompson	66
Mr. Pascarella	73
Mr. Fogarty	76
Choltco-Devlin, Beverly, director, Morrisville Public Library, Morrisville, NY; and Jeanne H. Simon, chairperson, U.S. National Commission on Libraries and Information Science	36
Prepared statements of:	
Ms. Choltco-Devlin	79
Ms. Simon	87

LIBRARIES AND THEIR ROLE IN THE INFORMATION INFRASTRUCTURE

TUESDAY, APRIL 19, 1994

U.S. SENATE,
SUBCOMMITTEE ON EDUCATION, ARTS AND HUMANITIES,
COMMITTEE ON LABOR AND HUMAN RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:08 a.m., in room SD–430, Dirksen Senate Office Building, Senator Paul Simon (member of the subcommittee) presiding.

Present: Senators Simon and Wellstone.

OPENING STATEMENT OF SENATOR SIMON

Senator SIMON. The subcommittee will come to order.

I am pleased to be chairing this hearing during National Library Week. Today's hearing will focus on libraries and the information superhighway.

Although I still use a vintage Royal manual typewriter, I doubt if my granddaughters ever will. They will grow up using modems, internet, worldwide web systems, and cd-roms. Their use of the technology will be second nature. Yet, if in creating the superhighway we do not include public libraries as an integral vital part at the start, the superhighway will bypass and shut out many of our citizens. We will have created the information haves and have nots.

The superhighway should not be linear freeway, but a series of interconnected wagon wheels. At the center of the spokes would be libraries and at the outside are schools, businesses, homes, community centers, hospitals, and so on. Libraries can provide such things as access, education and training, navigation, archiving, and cataloging of information on the superhighway in a unique way. The witnesses before us today will show us what libraries are doing and what they could be doing. I look forward to their testimony.

Our hearing room looks a little different than usual this morning, with all the paraphernalia that we have here.

We are holding a hearing on trying to determine how libraries, which contribute so much to our society, fit into this new superhighway that we are hearing about. It is a different world today for libraries than it was when I first walked into a library as a young boy and went through that card catalog. It will be even more different 10 and 20 years from now, than it is today.

We have a series of distinguished panelists, and we are pleased to have all of them here and to get some feel for what we can do

in the Federal Government to both encourage libraries and to encourage the utilization of the technology that is being developed.

Our first witness is Howard McGinn, Director of the Emporia Public Library, Emporia, KS. I might mention, Mr. McGinn, that I read the autobiography of William Allen White when I was—I do not know how old, but I remember reading it, and in his autobiography he said I got more out of the University of Kansas Library than out of the University of Kansas classroom. I read that and I could say the same. In my case, it probably does not say that much, because maybe I did not get that much out of the classroom. The library meant a great deal to me, and I am sure that Emporia Public Library William Allen White took advantage of as a young person meant a great deal to him.

We are pleased to have you here, Mr. McGinn.

STATEMENT OF HOWARD F. McGINN, DIRECTOR, EMPORIA PUBLIC LIBRARY, EMPORIA, KA

Mr. MCGINN. Thank you, Senator.

Mr. Chairman, thank you for giving me this opportunity to testify. My name is Howard McGinn. I am Director of the Emporia, KA Public Library.

The Emporia Public Library is the oldest library in continuous operation in the State of Kansas. It was founded 125 years ago by a man named Preston Plumb and a group of businessmen in Emporia, and it was founded as a tool for economic development. The logic was simple. Emporia, in 1869, needed to lure people traveling on the nearby Santa F Trail.

Preston Plumb knew that a town with a library was civilized, a town with a library founded by the business community would use the library's information to support businesses and provide jobs. Mr. Plumb's efforts succeeded. Emporia grew and prospered. Mr. Plumb also prospered. He would soon leave Emporia to serve as a member of this great institution. Preston Plumb served three terms as a United States Senator and died while in office in 1891.

Today, the Emporia Public Library continues to serve the information needs of the city and the surrounding area, and the needs are substantial. In the past few weeks, for example, local governments have had to confront these information intensive topics: water supply, waste treatment, toxic waste disposal, cable television licenses, expansion by major industries, public school funding, and crime control.

Last week, the public library provided information to an investment group about opportunities in Puerto Rico, track the State legislative action electronically, help people find employment opportunities through the National Job Database, help the 6th grade student learn, in his word, "everything he needed to know about dinosaurs," enabled a woman who had undergone surgery for cancer obtain information about chemotherapy, assisted local governments with their information needs, and answered several hundred other questions.

Sir, this is the information of real life. This is information needed to make life decisions. This is not ethereal data flowing from one super computer to another, from one research center to another. This is the type of information provided by public libraries in com-

munities of every size across the United States. But many think that the provision of this type of information is not important. It is too simple, it serves no research purpose. They think it has no place in the national information infrastructure.

Senator, I suggest the opposite is true. Public libraries and the information they provide must be the driving force behind the development of the information infrastructure.

In a recent report in Newsweek Magazine, a Japanese was asked how the United States had been able to regain the lead over Japan in broad areas of technology. His response was very direct: "I keep asking our government to speed up the creation of the information highway, like America is doing, but they aren't paying attention."

You are paying attention. Many others are not. We must gain their attention, and I suggest the following steps be taken to bring attention to the imperative of placing public libraries at the forefront of the development of the information infrastructure.

First, include public librarians in all information policy discussions. Public librarians represent the information needs of the people of the United States.

Second, the public library is the community's information public utility. Please make it possible for the people to receive information generated by tax dollars through public libraries at no cost. Lift the burden of exorbitant telecommunications costs that exclude so many from the information networks.

Third, provide scholarships and other financial assistance for the education of librarians. We had the will to face educational needs at the dawn of the space age. We must show that same will to face educational needs at the dawn of the information age.

Senator Simon, I know you used the analogy of the wagon wheel to describe the role the public library plays in its community. I think it is an excellent symbol.

Last week, I experienced a convergence of symbols that we use to describe the information infrastructure. North of Emporia, as I mentioned, is the Santa Fe Trail. The ruts in the trail caused by the wagon wheels are still visible. I was driving on a rural road that parallels the trail. The road wound through the prairie lands of Eastern Kansas. As I drove, I saw a bridge ahead that crossed the interstate highway that runs from Wichita to Topeka. I crossed the bridge and traveled further into the gentle hills of the prairie. As I reached the peak of a hill, just having passed over the interstate highway and riding next to the wheel rutted Santa Fe Trail in the middle of the Prairie, I passed a cellular telephone tower.

No one was denied use of the Santa Fe Trail or the interstate highway system. I urge this committee to assure that no one is excluded from the electronic information highway symbolized by that prairie cellular telephone tower. You almost have no choice. If electronic information is to be brought to all of the people all of the time, there is only one avenue, the public library. Senator Preston Plumb realized this in 1869, when he started the Emporia Public Library. I urge the Senate in 1994 to follow his example.

Sir, thank you again for this opportunity to testify. I will be glad to answer any questions you might have.

Senator SIMON. Thank you very much.

We are going to be following the 5-minute rule, and you kept within your 5 minutes, and I appreciate that, Mr. McGinn.

Your first point is one that I hope we can follow that suggestion of having librarians on committees that deal in this whole field.

Your second point on cost, can you be more specific? What kind of costs does the Emporia Library face in this field, and what are your resources for meeting those costs?

Mr. MCGINN. Right now, my only resources are tax dollars raised through a local property tax levy right within the City of Emporia. But because we serve as a trade hub for a seven-county region, it is very difficult for libraries outside the city to dial into databases in the city or to reach other databases. It is a long-distance phone call just 8 miles away from the City of Emporia. And this kind of long-distance rate structure really hampers access to information by people living in rural towns in the United States. I suspect the same kind of process exists in many urban areas, but especially in rural areas.

Senator SIMON. In terms of costs for a library like yours in Emporia to be brought up to date with the kind of equipment and everything that you should have, what kind of costs are we talking about?

Mr. MCGINN. Right now, I am looking at a minimum of $100,000, and that is just to provide up-to-date access to information for Emporia and the surrounding area, and this is money that I just do not have.

Senator SIMON. When you say surrounding area, does that cover that seven-county area then?

Mr. MCGINN. Yes, sir, it does.

Senator SIMON. What do you get from the City of Emporia in terms of your taxes there?

Mr. MCGINN. My taxes this year will be approximately $275,000.

Senator SIMON. And you need that $275,000 just for acquisition of books and personnel and that sort of thing. You cannot squeeze another $100,000 out of that $275,000?

Mr. MCGINN. It would be very difficult.

Senator SIMON. So Emporia—and I am just using Emporia as an example for the Nation—what the Emporia Library really needs is some assistance in order to be part of seeing that that information is accessible, not only to the citizens of Emporia, but for those counties around there?

Mr. MCGINN. That is right, and the assistance has to be in two ways. I think we need the immediate infusion of funds in order to purchase equipment, but then we have the ongoing costs of continuing to provide equipment to Emporia and also to rural areas around Emporia.

Senator SIMON. We have been joined by Senator Wellstone, who has many distinctions, but right now his most important distinction is his wife was once a librarian. [Laughter.]

Senator Wellstone, we are happy to have you. Mr. McGinn is from Emporia, Kansas, and is testifying.

Senator WELLSTONE. Thank you, Mr. Chairman.

I have the flu today and cannot speak, so everyone is blessed, but I came to listen for a while.

Senator SIMON. You never sounded better, Senator Wellstone. [Laughter.]

Senator WELLSTONE. Mr. Chairman, I have read several chapters of your manuscript, and if you want me to keep reading, you had better be kind to me. [Laughter.]

Senator SIMON. Mr. McGinn, we thank you very, very much for your testimony here today.

Mr. MCGINN. Thank you, sir.

Senator SIMON. Dr. James Billington, Librarian of Congress. Jim Billington heads the world's most distinguished library, which is a huge resource for this Nation. And is a huge resource in terms of Russia and what is happening in Eastern Europe.

We are very pleased to welcome Dr. James Billington here today.

STATEMENT OF JAMES H. BILLINGTON, LIBRARIAN OF CONGRESS, LIBRARY OF CONGRESS, WASHINGTON, DC; ACCOMPANIED BY NAT GADSON, DONALD HILLER, BETSY MILLER, AND RUBIN MEDINA

Mr. BILLINGTON. Thank you, Mr. Chairman, Senator Wellstone, ladies and gentlemen.

I appreciate being invited here, and let me start by saying that if our unique array of libraries of all kinds did not now exist in this country today, they would have to be invented. Because as we head into this new technological age, no other institutions exist that could provide across this country for the great majority of Americans access to the highest quality and broadest array of information resources, which are the key to so much economically, as well as educationally, in this country. Professional libraries know how to acquire, organize, preserve, and delivery the information and the knowledge that Americans seek in all walks of life. Thus, librarians have got to be key players as the leadership in both the public and private sectors develop the information infrastructure of the future.

To ensure the broadest possible access to information, the Nation must recognize and sustain its unique library system, while we in the library community must work together in new ways in the design, construction and maintenance of America's new information infrastructure.

Information technology, properly organized and supported, can have enormous positive results, just as Andrew Carnegie's public library movement of a century ago gave the general public unprecedented access to knowledge and self-improvement. Today's opportunity is no less grand.

I would like to describe to you the way the Library of Congress is moving in this direction in four important and different ways:

First, by enriching and energizing the existing network, which is already substantial; second, by creating core content for a new national digital library, the freight, if you like, for the trucks to carry on this highway; third, by defining the library's own strategic digital plan; and, fourth, by helping lay the groundwork for the network of the future, the national information infrastructure.

Let me discuss each of these four briefly. First, the Library of Congress is enriching the existing network by becoming, in recent months, a major presence on the Internet. We now provide free into the Internet more than 26 million records, including the entire Li-

brary of Congress card catalog, summaries and status of Federal legislation, copyright registration records, and abstracts and citations from foreign laws.

Over 7,000 people log on to the Library of Congress files over the Internet each day. The library's staff has designed an easy-to-use menu system, called LC MARVEL, accessing Library of Congress information and connecting to other resources on the Internet. And the library is continuing to build new tools to improve access to our resources over the Internet and to make additional materials available.

The Library of Congress is the first and, as far as we know, the only institution so far anywhere to make available electronically the images and accompanying texts from all its major exhibitions, so that they can have a continuing educational impact at other locations: Secrets of the Russian Archives, Columbus Quincentennial, Vatican Library Treasures, Dead Sea Scrolls, and African-American Mosaic, to most our most recent one. Over 400,000 visits, for instance, have already been made to the electronic Russian exhibit in the commercial network, America Online, alone.

Second, and perhaps most critical to the future of libraries, is our plan to create the core content for a new National Digital Library. We are nearing completion of a 5-year pilot program in our American Memory Project, for which we have digitized two dozen Americana collections, including prints and photographs, manuscripts, sound recordings, and motion pictures, a true multimedia database. You will see some examples of this effort in our demonstration.

American Memory is designed to bring the values of our older book culture into the new electronic culture. It will provide a vitamin enrichment for hard-pressed schools and libraries. Teachers will mediate the materials, and young people will get motivated to delve into books in order to answer the questions they themselves ask of the multimedial, interactive material that they call up on the screen.

Our tests have found in 44 sites around the country that American Memory works well with children even in the 4th and 5th grades, activating their intellect by stimulating the kinds of open questions that the hitherto inaccessible primary materials of our history inevitably raise, exposing them simultaneously to old materials and new technology, both the memory and imagination. American Memory provides the electronic equivalent of browsing and of making choices.

In delivering our unique collections by electronic means to libraries and schools, our goal is to reinforce local communities of learning. Our role, as we see it, is to be a benevolent wholesaler to the local institutions which, in turn, will be efficient retailers of knowledge and information to students, teachers and the public.

The National Digital Library will be built in collaboration with the private sector and with materials from other major depositories. The library's vast existing collections, which are largely based on copyright deposits and includes some 104 million items, will provide a base on which to build the National Information Infrastructure. Core materials for the National Digital Library will be taken from Library of Congress' immense and often unique collections in all media.

Now, the third way the library is moving into the digital age is by defining a strategic plan covering our future, as well as current collections. The library is attempting to build its capacity to acquire, catalog, preserve, and provide access to a future collection that will be increasingly digital in format itself, to convert other portions of the current core collection into digital formats, and to integrate both digital and nondigital materials. The library intends to play a leadership role by developing new approaches to organizing, managing, and preserving digital materials, creating necessary procedures for protection of intellectual property, and acquiring resources to convert current collections to digital formats.

Finally, the Library of Congress hopes to contribute to the electronic future by being an exemplary catalyst for the library community more broadly in building the National Information Infrastructure.

As we and others see it, "content" and "access" are no less important than "technology." Our basic belief is that if the new electronic highways are to serve America, they must do more than simply provide entertainment and high-price information on demand to the well-to-do at home or in the office. There is a critical need for nonentertainment material that is inexpensive and accessible to the American public.

The Library of Congress' collections are part of the Nation's "strategic information reserve" that will provide the intellectual cargo on the information super highways. Local libraries will be the key "information nodes," if you like, to use modern language, where people can access a vast variety of information services. Librarians will increasingly serve as "knowledge navigators," guiding users to the information they are seeking, going back and from the electronic station to the reserve of books in which deeper, longer questions and more sustained trains of thought can be pursued.

The library will contribute to the discussion of critical public policy questions, such as support for libraries during this time of transition, protecting intellectual property rights and developing bibliographical standards for the electronic age, which to some extent we have already begun with the LC MARVEL.

Even as the discussion proceeds, we are mindful that far beyond all the data, information, and even knowledge that we can accumulate and disseminate electronically lie the true peaks of human accomplishment on which the future of our civilization depends, wisdom and creativity.

The business of libraries is the pursuit of truth, the highest form of Jefferson's pursuit of happiness, the surest way to protect us from the pursuit of each other, and the only pursuit in a time of growing physical limits where the horizons for our cherished ideal of freedom can still safety remain infinite.

Our challenge is to meet the multimedia age head-on, to construct a digital delivery system that promotes the value of ideas, that sends people back to books, rather than pulls them away, as the home entertainment center tends to do, that stimulates the active mind and stimulates those marvelous local institutions immediate to the American people.

Now, I have finished my testimony, but I just want to introduce the demonstration, Mr. Chairman.

[The prepared statement of Mr. Billington appears at the end of the hearing record.]

Senator SIMON. We are getting some kind of voice. New equipment can sometimes be a distraction. Is there the possibility of one of you technicians—we will get Senator Wellstone down there, if we cannot get one of the technicians to do this—to get that voice knocked out. You are picking up another hearing? All right.

We will let you proceed, Dr. Billington.

Mr. BILLINGTON. By way of brief introduction, we have temporarily moved some of the equipment from our facilities to the hearing room, so we could show you some ways that the library is advancing technological tools for all libraries, we hope.

I wish to express my appreciation to all those who have made this demonstration possible. It truly was a joint effort between the Senate and library staff.

Mr. Chairman, I would like to introduce Elizabeth Miller, who will demonstrate LC MARVEL and the Internet, and Don Hiller and Nat Gadson will follow Ms. Miller with a demonstration of digital imaging and video conferencing, and Dr. Rubin Medina, the newly-appointed Law Librarian of Congress, will participate in our two-way video conferencing.

I am happy to turn the field over to the professional traffic police for the information super highway, Mr. Chairman.

Ms. MILLER. Thank you, Dr. Billington.

Mr. Chairman, Senator and guests, I will be demonstrating how the Library of Congress is using the Internet and International Global Computer Network to provide outreach and services to researchers, the public community and to Congress. Internet access is now available in over 100 countries, and its use is extremely widespread in the United States.

Although the library makes use of a wide variety of Internet tools, the major tool that it is currently using to delivery information and services is called the Gopher software, and it was developed at the University of Minnesota, and we like to use it as a primary delivery tool, because it is so user-friendly and easy for anyone really basically to pick up and use.

One of the problems that an average person encounters when trying to navigate on the Internet is that the vast array of information available, there is not a lot of control and organization. So librarians are now adding their great value to the Internet by using their unique talents as organizers and classifiers of information resources. The librarians at the Library of Congress have done just that when creating this Gopher based tool called LC MARVEL, which stands for the Library of Congress Machine-Assisted Realization of the Virtual Electronic Library, kind of a mouthful of an acronym.

LC MARVEL provides both internal electronic information and services, ranging from things like the Library of Congress calendar of events, to employee information, from electronic copies of newsletters, like the Library of Congress Information Bulletin, to proceedings of the Cooperative Cataloging Council, quite a wide variety of information.

In addition, LC MARVEL also provides some unique topical arrangements of Internet resources. This is where the librarians have

used their skills as organizers of information. You will find those under things like the Global Electronic Library by subject, which is subject heading orientation of Internet information, and also under the U.S. Congress and Government information there is a lot of genre organized information coming from the government.

What I would like to do is begin my demonstration in the area of events, facilities, programs and services, and basically the way that I am using this system is to point to a topic, click on the mouse, and it will take me to the next menu item.

What I would like to show you in here is an example of something Dr. Billington mentioned, which is our ability to provide online exhibits from the Library of Congress. We are looking at 1492 and an ongoing voyage, and we are going to actually look at an image from that exhibit. So I am just proceeding down through the menus by choosing something and pressing the mouse button. Now we are going to look at an image called World Map, and that will take a few seconds to actually appear on the screen, but something is happening.

When that image displays, you will see an actual digitized image of a world map from this particular exhibit. That is coming up right now on the screen. This is something that anyone on the Internet that had an Internet connection, including public libraries and schools anywhere in the United States or internationally would be able to view. So that is an example of an image from one of our exhibits.

The next thing I would like to show you is how we have research and reference information from the Library of Congress available on the Internet. For instance, you can access information about the different reading rooms of the Library of Congress. If we look in particular at the Law Library, we can find out about their hours and location, and so we can actually find out hours of public service, and you can actually see when that particular reading room is open.

In addition, we have Internet resources in the area of law, and they are available through that particular topic, things like U.S. Supreme Court decisions, which are now available on the Internet. You can actually, on the day that a U.S. U.S. Supreme Court decision is made, access that in electronic form, and here is an example of all the decisions that are available online from the 1994 session.

It is also possible to get information about library services from the Library of Congress, including information about cataloging, acquisitions, preservation, inter-library loan services, and information for publishers, such as how to get cataloging and publication information, how to get your international standard book and serial numbers, etc. That is a great service to librarians throughout the country.

We look in the employee information area, another interesting thing that we provide is employment opportunities not only to jobs available at the Library of Congress, which you can access in full text here, but also to jobs available outside of the Library of Congress. So here we have employment opportunities and services outside of the library, and these are all different services available over the Internet that allow people to find jobs in different areas.

The Chronicle of Higher Education produces something called Academy this Week, and we are looking at that right now. We are looking at the chronicle list of job titles. If I go down to faculty and research positions in the humanities, in this case I will pick English language and literature, you will see all the different positions that are available currently, and someone from anywhere in the United States, if they had access to the Internet through their public library or some other institution, could view this information, and it would help them find a job.

We also have access to government information on the Internet, and this is another way that the Library of Congress has provided a great organization of information resources. Under Federal Information Resources, we have information listed by agency. So if you were to go into the Executive Branch, you could actually go into a particular agency and find out all the different information that they provide over the Internet.

It is also something that has grown greatly recently, has been State and local government information available on the Internet. As an example, we will look at the State of Maryland, in which the State of Maryland now has their own Gopher server, just like the Library of Congress has a Gopher server.

The State of Maryland has something called Seymour, and Seymour is now available over the Internet and it will be more broadly available this summer to citizens of Maryland. They will be able to actually even dial into this, if they do not have an Internet connection, and this would be their way into the Internet. So this is a very nice service that the State of Maryland is now providing. And many, many other States are providing information on the Internet.

Now, if we look at the Global Electronic Library by subject, this is another place where librarians have taken subject terminology and organized Internet information under particular subject topics.

If we look, for instance, at social sciences, and this is a big growing area on the Internet, and looking in the area of education, you will be able to see a broad variety of resources and something that has grown a lot in the past few months are the K-12 resources on the Internet. So you can see an example down at the bottom of the screen of several different places where K-12 information is being provided.

Something that I found very interesting is something that CNN is providing now. They are providing classroom guides that come out daily, and so if a teacher was teaching current events in their classroom, they would be able to get the information for the current day and get an actual lesson plan. So here is April 19th, and someone could bring this up or they could transfer it back to their classroom, and they would have basically all of the current events of the day and a lesson plan that would help them run their class. So that is a very interesting resource that is being provided.

The last thing on LC MARVEL that I want to show you is in the area of Internet resources, and this is something that I am not sure we will be able to get into today. But there are a lot of things called FREENETS out there, and this is where the communities are providing information on the Internet. It is lots of community based information. Unfortunately, because these FREENETS are so popu-

lar, they are very difficult to get into. So we are sort of going in as guests. The people with the real accounts are the ones that are able to get in, and sometimes we suffer as external users.

What I am trying to do is get into the "Heartland Freenet" right now. Luckily it is back up again today. Earlier this morning, we were not getting in. Basically, I am just putting in some information about my terminal, and I am going in as a visitor, and I am going to ask to explore the FREENET system, without actually having an account. So I am looking at the system as a guest.

This is actually their main menu, and you can see that it is organized as a community would be looking at it. We have administration building, social services, senior center, government center, things like that, library center. If we looked at the senior center, you can see lots of services for senior citizens, including educational information and opportunities. Something I found interesting in here is something called Senior Net, which is a service that is for teaching senior citizens to use computers and, hopefully, to get them into this information technology as all the kids are doing nowadays.

So we are going to go ahead and exit the FREENET system. That is just to give you an example of community based information, and there is lots and lots of it out there.

What I would like to do now is move to another tool that shows you some future development at the Library of Congress. What we are using is something called Worldwide Web and Mosaic, to display information from our exhibits.

This particular exhibit is the African-American Mosaic, which is a current exhibit at the Library of Congress. As I page through this, you can see that there is a small picture and then some text that describes it. So if I am moving through the exhibit and I actually want to look at one of these pictures, I can point to it and click on the mouse—unfortunately, we got an error on that. In normal circumstances, I would click on the mouse and that picture would explode on the screen and I would get a bigger image of it. So this allows me to associate pictures with text from the exhibit. It is a very nice way to present exhibits.

In addition, we also are using this tool for American Memory images, in this case Civil War photographs. Again, you can see the photograph is superimposed with the text, and we may have the same problem again, technical difficulties. Again, we would be able to expand these pictures and blow them up, so that you get a full-screen image.

That is the end of my demonstration. What I would like to do now is turn the demonstration over to Nat Gadson, who will be talking about image processing.

Senator SIMON. I am sorry, I could not hear.

Ms. MILLER. I will be turning over the demonstration to Nat Gadson, who will be talking about image processing.

Mr. GADSON. Good morning, Mr. Chairman and staff.

My presentation is on image processing, and that is basically the method by which pictures of any sort are captured, processed and displayed. Now, this is of great importance to us at the Library of Congress, because we have over 100 million items, where 80 per-

cent of those items are not in textual form, but are photographs, maps and other materials.

Furthermore, even books, journals and other items which are in textual form can be displayed and captured using image technology. Now, a good thing about this is the entire printed page is captured for redisplay, not just the textual form. I want to talk a little bit about our preservation and conservation offices, before I went into the display, and that is basically those offices are using image processing to preserve materials. This is good, because once an item is digitized, it can be assembled many times for easy digitization of that material.

Now, we will see how we use image processing at the Library of Congress, first to restore items and the preservation and conservation area. This image, which was part of the Thomas Jefferson Building, was used in the restoration of this picture. The people from the Office of the Architect of the Capitol were able to take a photograph of that particular mural and work on an area for restoration prior to laying any paint on canvas. They were able to do things like enhance a particular area.

For example, if we want to look at this foot, we can outline it. Once we select that area, we can go in and do such things as adjust the colors or brightness of contrast. Here again, I will show you the brightness. You can see that one particular area of the painting being changed without anything else being affected. Now they can do this and take that particular image and print it out, take it back to the Architect of the Capitol and they can review it and see whether or not that is how they want the image to look, without the artist laying any paint to canvas.

Additionally, we use this system on the African-American Mosaic. We were able to scan pictures in, and once we scanned them in, we were able to massage them and try to get the best print that we could for display, and then store them on our server, so that when people sign on to Internet, they can access the picture. This one particular item that I am bringing up was a print "Books Are Weapons."

And there was on more that I wanted to bring up, which was as letter to Thurgood Marshall, inviting him to the African-American Mosaic in 1942, which you can see. This is a pretty good image. The user again can go to any particular area that they want to see and blow it up. Let us grab this other one. I think it is a little more significant, just to show you how image processing can be used with text.

This is a letter, as I said, written to Thurgood Marshall, inviting him to speak at the African-American Mosaic. As you can see, not only do you get the text, but you get the print, all the watermarks, everything that was stored on that particular image. So you as the user could view any particular area of that.

The next thing I want to show you is how we actually can capture images from our lives. Here you are seeing from this camera the dais itself. I could actually record a particular area of that, once I record it, take that image and actually make it into a picture. Let's open up the photo shop, and we can bring those pictures out and manipulate those images in any of the ways that you saw earlier, such is changing the colors or adjusting. You can move peo-

ple around from the proceedings. In fact, why don't I show you one of those.

I will do a couple of the dais, just to show you what we can do with them. This picture that we just captured, if we wanted to—this is from a previous conference that I snapped the image—we could very easily take, for example, Senator Wendell Ford and copy him over here. I will try this again. We will take Senator Stevens. In essence, we have made a new picture.

We can highlight, change areas, move anything. I think Senator Stevens would like to be in a different area. So this just shows you some examples of what you can do with image processing.

I want to show you how we actually store and manipulate images on our internal database. This particular thing was developed by Duke University, and some of the images on there. You can see very easily you can manipulate and bring the image up.

There is one other thing that I can show you after this presentation is over, but I am running out of time, and I want to turn you over to Don Hiller, and he can show you some things on video conferencing.

Thank you.

Mr. HILLER. Nat has shown you that we are digitizing much of the material and finding new ways to digitize in the Library of Congress. We also need to find ways to disperse this information, and we have come up with several means which we feel are very effective in helping people learn how to use materials from the Library of Congress. In addition to this, we would like these materials to be in time eventually networked in a real time mode to anywhere in the country, in fact in the world.

What I am going to do here is show you some multimedia which we have created, and we worked with private industry on this, Apple, Falcon and Supermax, to create these images. We took a standard image, and what we have done is expanded it and put it into a 30-frame per second or real time mode.

What I am going to do is bring up Dr. Billington, explaining how all formats can be used. Another thing, we have selected a format which we feel is very easy for the individual to reference. If I had a touch screen, I could touch these images, but in this case I have a mouse. So let me bring up Dr. Billington and see what he has to say.

[A videotape was shown.]

Mr. HILLER. We were able to I think fairly easily understand what Dr. Billington was trying to explain in this clip.

I would now like to bring up another clip that Vice President Gore has said about the Library of Congress.

[A videotape was shown.]

Mr. HILLER. I would like to show how we can also control. If we did not understand what the Vice President was saying, we can merely just go back by switching here into a replay, so we can recall at any point anything we wish to do so. We can also save this in memory. This is not on an external device, but in the memory of the computer. This information can also be networked.

In addition to that, we found that we needed to come up with a means in which we could capture information in a real time mode, so we worked with an organization, which I would like to now dis-

play how we can now show the Senate floor, and that was the voices you were getting earlier, and also capture and play back at any point.

I am now going to take the same information and digitize it. I can process by taking the information from the cable and put it into the memory of the computer. I will play this back for you.

What I would like to do now—I will not save that—what i would like to do now is introduce Dr. Medina, the head of the Law Library, who is now over at the Library of Congress. We are presently bringing this over through twisted pair and fiber to you people.

Dr. Medina, you are now on.

Mr. MEDINA. [Via video transmission.] Thank you, Dr. Hiller.

Mr. Chairman, ladies and gentlemen, thank you for giving me the opportunity to tell you about an exciting project currently being explored at the Library of Congress. As you are aware, the Law Library of Congress is responsible for collecting and maintaining primary legal sources from around the world, such as constitutions, acts of parliaments or legislatures, and regulations.

Researchers and scholars come to the Law Library to access such materials. In recent years, Eastern European researchers have used the Law Library's collection to help build democracies in countries where primary resources were destroyed during years of communist rule.

The Law Library is now organizing a cooperative agreement with other international legislative information centers to establish an electronic network through which legal information in digitized form will be exchanged and processed. The data will be organized in a coordinated and maintained global database, and will be available to the library community via the Internet.

This project will enhance the Law Library's collections by making international legal information available in a more timely manner, and it will mean that researchers in the United States and around the world will be able to access these materials electronically from local libraries and eventually from their own homes.

Thank you, Mr. Chairman.

Mr. HILLER. Thank you, Dr. Medina.

I would now like to just briefly bring up what we call the quad. I can bring up many pictures simultaneously and each could be viewed. We are going to bring up Dr. Medina, the floor of the Senate, and you, Senator Simon. We will be simultaneously viewing this. I can also record this and save it for posterity, and play this back.

These are just some of the means which we are now looking at to the future, to take the information at the Library of Congress and disperse it throughout the country, in fact throughout the world.

This is the conclusion on the Library of Congress' presentation. If there are any questions, we will be available after this hearing.

Senator SIMON. Thank you very much.

Before you get available after the hearing, let me just toss a few questions at you right now. How much of this equipment will an average library in Decatur, IL, should that library, or Emporia, KS, have?

Mr. HILLER. One of the things with which we are very concerned is the cost here. We did not do any rewiring for this. We used the existing wiring in the Library of Congress, and we have just strung a few wires over here today to present this.

We are also presenting this system, which is the analog system, on analog, which means that we do not require any additional wiring within the machine. We do require a board, though. For a PC to have this capabilities, we are estimating with 20 users the maximum, that is 20 years on the system, a maximum of $1,000 per computer. This is the lowest price we have ever been able to do. Before this, this same type of capability would be approximately $13,000 to $14,000.

Senator SIMON. When Mr. McGinn, from the Emporia Library, was talking about $100,000 in needs, obviously that is more than one computer, more than——

Mr. HILLER. That is correct.

Senator SIMON. What is the difference between what he is talking about and what you are talking about?

Mr. HILLER. The main difference, Senator, is this which I have just presented has not been made available to the public to date. It will be released around May or June. We have been working on this for about a year and a half. Of course, if you already have PC's, all you need to do is add in a board and a camera, if you want to have conferencing capabilities. You are then having access to the Library and its materials. So how do you put a price on that?

Senator SIMON. Dr. Billington, maybe you could answer this, or Mr. Jackson or Ms. Miller or any of your people. You had to train people in the Library of Congress. They were not immediately able to take advantage of all of this equipment. What kind of per capita training costs are we talking about?

Mr. BILLINGTON. It is difficult to say. We have one of the lowest training budgets in the United States Government.

Senator SIMON. Is that a hint here? [Laughter.]

Mr. BILLINGTON. I really want to pay tribute to the staff. This has been self-generated. We have had a great deal of in-kind donated help from some of the high-tech companies that have been very helpful in this regard, because they realize that we are all on the frontiers of new things.

Our experience I think should be encouraging to other libraries, because most libraries, practically all libraries have computerized cataloging systems already, so they are familiar with the basic equipment, and we are trying to work so there can be inexpensive enhancements to existing equipment, rather than massive new technological investments for local libraries.

I think our experience has shown that the skilled professionals who are already working to some degree with this kind of technology, with a little additional help, can master this rather rapidly, which is another argument for librarians doing this, because the library profession is already into the electronic world in its cataloging entirely, and in other areas increasingly. There is no doubt there is need for more help on the training front.

Senator SIMON. Again, picking on Emporia, KS, for the Library in Emporia, KS, to come up to date, are we talking about significant costs?

Mr. BILLINGTON. First, I would like to say in the training area, this is one example which we had up on the screen which we feel is very easy to use. There needs to be minimal training. It tells you the subject over on the far right. I do not know whether you can see that. In fact, I apologize for those monitors. Here on my machine it is much clearer. You can do selected materials just by clicking on this. There is really no educational background necessary to learn this.

We can also enhance this. This is just one example of how we can display the information. We can have pictures actually showing what is being presented in a multimedia format.

The other thing is, if you already have existing PC's, the requirement, as I stated earlier, would be around $1,000 to modify your PC's to allow this information to be displayed. If you are already in Internet or using a network device of some sort, you can go over the lines and receive this information.

Now, there is something here that has not been released, but we are working very, very hard on——

Senator SIMON. Just to follow it, a library that is on Internet now, you are not talking about additional costs here?

Mr. BILLINGTON. That is correct.

Senator SIMON. That is correct?

Mr. BILLINGTON. That is correct. We are also working very closely with a private organization at this point—it is not available, I want to make that very clear—that we can now take this information and ship it over dollop lines. All you would be doing is paying for a phone call.

Now, I want to explain that we are not going to be going at 30 frames per second as I displayed here, but at this point in time around 15 frames per second. Again, I do not want to get too technical here. You are not going into T1 lines, you are not going to ATM, which is extremely expensive. We are working very diligently with Ogden Corporation and the staff here to come up with that system. I cannot say when it is going to be released, but we hope within this year.

Senator SIMON. We thank you all very, very much for giving us your testimony.

Let me ask one final question of Jim Billington, because he shares my interest in history. When you go back, you can see what Thomas Jefferson wrote to James Madison, and we have access to that. The telephone came along, and all of a sudden, instead of writing to Jim Billington, I get on the phone, and historic research becomes much more difficult. Is all of this going to aid us or harm us 50 years from now, when they come back and try to understand where we are and why we did things?

Mr. BILLINGTON. Well, I think it is like in a poker game, if you switch from white to blue chips, you up the ante, but you do not basically change the game.

Senator SIMON. I see what you do in your spare time. [Laughter.]

Mr. BILLINGTON. The game is basically what human beings do with information, how they turn it into knowledge, whether they use it for wisdom and sustain creativity and what kind of a society they create.

Our society was created by people rich in the book culture, and it seems to me—and it is central to our whole philosophy on this—that we are trying to reinforce the book culture. We are trying to put electronic editions in the midst of books, because books sustain a train of thought and do not just leave you in this bumper-car of emotion that the television so often, particularly entertainment television has come into.

Active citizenry requires this kind of active mind, and so these technologies, which are increasingly interactive, the capacity to reinforce the book culture, which is an essentially passive, emotion-based media, like television as such really does not have. So I think it ups the ante, but it also increases the potential for good and the potential for not only disseminating much more knowledge to much more people, but stimulating them interactively with these new technologies.

The beauty of them is that if you get the good cargo in there on the super highway, then all these deliveries do not just increase antagonism, they increase understanding. And I think the capacity of our system from a technical point of view not only can deliver more knowledge and information, but to stimulate more people into being active participants in the dialogue with that information, and more efficient users of their local libraries is a very exciting one.

So I think it increases even more our capacity for doing good things than it does our capacity for doing things, but the dual capacity is always there. But I think this immensely enhances our ability to be productive.

One of the earlier speakers spoke about global competition with the Japanese. One of the basic differentials between Americans and Japanese society is that we have an enormous supply of stored knowledge, much greater than they do. We just do not use it as efficiently as they do. So if we get more efficient use, our potential for doing more with the knowledge that we have, we very much underuse the knowledge that we have. The scientific and technical capabilities of our great libraries, a number of them are introducing delivery systems to the private sector, but the private sector on the whole has underused our great library system.

Our economy is more and more dependent on knowing what other countries are doing, and, frankly, we have all that information in the Library of Congress, and much of it in other great research libraries, and it is just not being used efficiently. In fact, a very distinguished Japanese said to me—and this was as few years ago, when they felt they were rather ahead of us in most economic areas—he said, "If we had your information base, we would be even further ahead than we are now and you would probably never catch us."

Senator SIMON. How do we encourage greater utilization?

Mr. BILLINGTON. Well, I think two ways. One is by using the new electronics to get people more familiar with what is in these great repositories, so that you can get access to more and more of that information remotely where you are, so you do not have to come to Washington or come to New York or any other great depositors, but can get more of it.

The second is by making fuller use of our knowledge navigators in the libraries. There is under-use of human resources, as well as

material resources. Librarians know where things are, and they are not asked often enough by the people that need information. They are more likely to go to some fancy consultant and waste millions of dollars, and all they need to do is to get into one of these networks or ask a specialist. The chances are, the consultants they spend a lot of more hiring simply are people who know how to go down and use the library and ask some wise librarian that has been cataloging this stuff for years and knows the languages.

The Library of Congress, for instances, we have a thousand people who are full-time catalogers, and these people have been reading to make the catalog entries, they have been reading materials on highly specialized subjects in more than 400 languages we collect in. There is a lot in their heads beyond what is in the bibliographic entries, and that should be tapped.

One way we are doing it is to more fully acquaint the people with what we have in the Library of Congress is founding a magazine called Civilization, which we will start in the fall. We will get a lot more of the information we have out and acquaint a much broader national audience with the resources they have here. There are 7,000 people now logging in over the Internet, and I think we are going to be playing more and more of a role. But it is going to be a shared role, a network role, and I think that the library system of this country is simply a tremendous economic and educational resource that we have not tapped enough.

But there is no question that this is a potential breakthrough for the American people, if we can get our act together and work together. No one institution or even a group of institutions can do this. This is a job for the library community as a whole, and I think the enthusiasm and technical expertise is there. So I think it is a very exciting prospect, one of the really upbeat things that we have to look forward to in the next few years.

Senator SIMON. We thank you, Dr. Billington, and your staff for your helpfulness here.

Mr. BILLINGTON. Thank you.

Senator SIMON. Our next panel, Harvey Franklin, President of the American Library Association, who is also Director of the Washington, DC Public Library; Agnes Griffen, Montgomery County Public Library; and James Ubel, Director of the Shawnee Library System, in Carterville, IL, and that includes our home community of Makanda, IL, as part of this system.

Mr. Franklin, we will call on you first. Again, for all the witnesses, we will enter your full statements in the record. We will stick to the 5-minute rule, so that we can have more time for discussion.

Mr. Franklin.

STATEMENTS OF HARDY R. FRANKLIN, PRESIDENT, AMERICAN LIBRARY ASSOCIATION, AND DIRECTOR, WASHINGTON, DC, PUBLIC LIBRARY; AGNES M. GRIFFEN, MONTGOMERY COUNTY PUBLIC LIBRARY, ROCKVILLE, MD; AND JAMES UBEL, DIRECTOR, SHAWNEE LIBRARY SYSTEM, CARTERVILLE, IL

Mr. FRANKLIN. Good morning.

Senator Simon and members of the subcommittee, I am here today in two capacities: First, as President of the American Library Association, which is the oldest and largest library association in the world, with a membership of over 57,000 librarians, library trustees, and friends of libraries at public, academic, school and special libraries; and, second, as Director of the District of Columbia Public Library. My staff and I stand ready to provide you and your families with library and information service, in the event you cannot find what you need at the Library of Congress. [Laughter.]

As we all know, this country is undergoing an enormous transformation. Almost everything we do in our civic lives, work lives, and private lives is changing, because telecommunications, computing and information technology are altering the way we communicate, gain information, connect to others, and even the way we think. Some say this change is as significant as the period following the introduction of movable type by Gutenberg, which made it possible to disseminate information relatively inexpensively and widely.

As your committee and other Members of Congress consider how to build both a strong and flexible national information infrastructure (NII), I want to draw your attention to the roles that librarians and libraries can play to support the NII.

The national information infrastructure presents an extraordinary opportunity for libraries, because information, in addition to being our business, is our middle name. Most of our master's degrees programs are in library and information science, and the resources we provide to our public are a mix of traditional library materials, such as books, magazines and films, audio and video tapes, and new information resources, such as CD-ROMS and online databases, which can provide us with abstracts or full text until we are on information overload.

As I look into the 21st Century, I can see clearly that, as the information highway expands, this country will need librarians more than ever to manage the ever-growing mountain of information and to bring people together with that information. Indeed, no other information professionals know both the richly diverse public and the richly diverse information resources so well.

Between us and this mountain of information are thousands of librarians are strategically positioned. Thanks to them, we can find the information we need, because we select it, acquire it, organize it, automate and disseminate it. Thousands of libraries have automated their card catalogs and opened their doors electronically, so that a growing, but still small number of information-literate users can search the collection from their homes and offices, as well as in the library and other the Internet.

To increase the public's comfort with high technology, librarians provide personalized service by coaching and training. Librarians offer help to those who want to take the most appropriate route on the information highway without getting lost or taking a long frustrating and likely expensive detour. Now, for those of us who need more hands-on guidance, librarians also serve as the human face of information, because they provide answers to millions of questions every year over the telephone, face-to-face, and increasingly via E-Mail and electronic bulletin boards.

Finally, our public librarians serve as change agents, introducing the public to the marvels that new technology can provide, but without losing sight of the library's original mission, and that is providing access to information in all formats, not just electronic, but to all people in this country.

I also see that libraries, as an institution, will be needed to undergird the emerging national information infrastructure, to the growing, but still small number of Americans, who are wired and plugged in. Their local public library will be accessible on-line to browse, to locate materials, and to retrieve information and materials. But for many of us, the library will still provide a clean, well-lighted, warm, welcoming and supportive climate where information can be found and trained staff can offer help.

If we are to remain a vibrant democracy, we must ensure that all people living in this country have equal information opportunity, that libraries must serve as the public access point, or the public "on ramp" to the information highway. Over and over again, I hear true stories of how people's lives have been changed by getting the right information at the right time. Their stories add up to what we all know to be true, that information is power.

ALA has been gathering some of these stories about how libraries change lives. Many of the people who write, tell us that their first introduction to a computer was at the public library. I have attached to my statement a few examples of these stories.

The technology of the Internet enabled ALA's Washington office to ask for input to this hearing from libraries around the country. I would like to submit for the record a compilation of responses received in just a week from the online inquiry.

Senator SIMON. They will be entered in the record.

[The information referred to appears at the end of the hearing record.]

Mr. FRANKLIN. While American libraries cannot solve all the social problems we are facing as a society, I believe that the public library must reach out to serve all segments of our society, in an effort to close the ever-widening gap between the information haves and have-nots. Libraries are deeply committed to literacy and lifelong learning and to partnership and collaborating with other public, private and nonprofit sector organizations to serve the underserved and the unserved.

In closing, I would like to say that if librarians are to play the vital roles of information managers, information navigators, information providers, teachers and change agents, we will need support from the Federal Government. Some of our libraries need technology to connect them to the information highway. Some of our libraries need funds to make their unique resources electronically available. Some of our librarians need education and training to bring them up to speed, so they in turn can train the public.

Senator Simon and members of the subcommittee, since there is no blueprint for what a library will look like in the 21st Century, we as a profession need seed money to support experimentation, research and evaluation.

I would like to thank you again for your attention and consideration, and I would like to leave you on a high note from five of my staff at the public library: Rita Thompson-Joyner, she is my Execu-

tive Assistant; Rose Timmons, Chief of the Children's Division; Shirley Payne, Library Technician Supervisor in our Cataloging Department; Regina Mobley, an officer in our security department; and Cindy Jones, a technician in the processing department. They will be singing the "Modem Song." This is part of preparation and training. [Laughter.]

Senator SIMON. I do not know how we are going to get this in the record here.

[A song was sung, followed by applause.]

Senator SIMON. Mr. Franklin, how do you select your librarians?

Mr. FRANKLIN. We go nationwide. [Laughter.]

This is part of our training, which takes place on our annual training day. We close the library for the purpose of training staff, and this was one of the skits. I hope that our input today will leave you on a higher note of concern and support.

Senator SIMON. Thank you very much.

I am in my 19th year in Congress, and I have never been to a hearing where we have had singing information before. [Laughter, applause.]

Ms. Griffen and Mr. Ubel, that is going to be pretty hard to follow, but we are going to call on you now, Ms. Griffin.

Ms. GRIFFEN. I did not set my text to music, and so you will have to settle for just words.

Good morning. Thank you for the opportunity to speak to you.

I am Agnes Griffen, Director of the Montgomery County Department of Public Libraries, just north of here in the free State of Maryland. I am also appearing on behalf of the American Library Association.

This morning, I want to talk a little bit about an important piece of the content that needs to be on the information highway and needs to be accessed by everyone. I want to talk about health and access to health information. I want to talk about the health of people, the health of our libraries and, ultimately, the health of our democracy.

I will focus on the vital role that public libraries can and do play in helping people make informed decisions about their health. Also, I will just touch on how our library sites and services are implementing provisions of the Americans With Disabilities Act, to make all libraries accessible, including—an this is something really I do not think people have thought about a lot—including adding the new and enhanced technologies that will translate print into voice and into Braille and so on, and that will then allow the disabled also to have access to the information super highway.

I also want to just briefly discuss how libraries are playing the game of being connected to the information highway, in building the on-ramps. Have you ever had a health question and you were not quite sure where to find the answer? I do not know. If so, you are not the only ones. Household surveys over the past 10 years in the State of Maryland have shown that health information is the number one statewide health information need, and I believe that probably would hold true for the whole country, if we did a national survey.

At the same time, these surveys indicated that most people were not aware that the public library did have information about

health. Even among people who asked doctors and other health professionals for information, nearly half said they required more and better information than they received from their health professionals.

That is why in Maryland we have been working together helping and learning from each other through various committees and plans under the State Department of Education in a coordinated statewide campaign called the Health Information Program. It has included 21 public library systems and 3 regional library resource centers.

Four libraries were selected as pilot sites to represent the various urban/suburban/rural and large and small library systems in the State. This is an excellent example of the right use of Title I LSCA money. Over $300,000 was spent over a 3-year period to support the project, including a public awareness campaign. This is a little brochure that is distributed through public libraries throughout the State, and I brought some appropriate technology, very primitive. In a few years, maybe this will be on the kind of display you saw. But these are some examples of the brochures and flyers that have been prepared in public libraries across the State, if you want to show them to the rest of the people.

Senator SIMON. For example, the one there that I see, are those used for——

Ms. GRIFFEN. "Puzzled by Health Questions?"

Senator SIMON. "Puzzled by Health Questions?"

Ms. GRIFFEN. That is a statewide program, but it certainly could be used nationally.

Senator SIMON. My guess is there are a lot of people who would be helped in that way.

Ms. GRIFFEN. We certainly are willing to share. After all, this was Federal funds used to develop this, so any other library that wants to could use them. I am sure the State Department of Education Division of Library Development and Services would be glad to share.

We also have little buttons for everybody, and I think I gave you one, that says "Health Information To Go."

The Federal funds were spent on a health reference interview training package, and more than 650 library staff across the State have received training using these kind of portable packages, again low technology, but they work.

In addition, librarians have created core lists of reference sources that libraries should buy to build a model health reference collection. This includes material on video and audiotape and in pamphlets and other reference materials, but also in electronic database and CD-ROM formats. None of these efforts would have been possible without Federal funding. These precious dollars are responsible for providing the opportunity to institute training programs for staff, purchase specialized resources and publicize the broad range of health related materials that are available.

I also wanted to just show you the county—and I think you have a copy of this—in our county, we are also a player in this, and we have our own health information center and we have a little card that you can put in your file. That was developed with Federal funds, initially with a lot of match funds, about 7,500 circulating

volumes and a lot of video materials and print materials. They are all inter-files, so whatever the subject is, you can get whatever is important to you. You can also look at the videotapes in the library.

We also have a lot of resources that are in CD-ROM format there.

In my written testimony, I gave you an example of a young man who was 27 years old who was referred to us from the National Library of Medicine. He was actually calling from New Jersey. That probably shows you the role we play in Montgomery County, where the National Library of Medicine is. Of course, our citizens think they are there to serve them and, of course, they cannot really do that. So we have become a very handy reference referral for them. This young man was able, with librarians and information sources, was able to become an informed consumer and make a decision that dramatically contributed to his well-being for the remainder of his life.

There was an article in Consumer Reports that stated that a good patient "not wanting to bother the doctor" can be sicker longer and dies sooner than the aggressive patient who finds information from outside sources and asks good questions, probably the first time we have some proof that libraries can keep people from dying.

In Montgomery County, we are also fortunate to have an online public access catalog, and we are on Internet, and I prepared a little map of the library and the information world for you to look at. In this map, you can see that the local public library collections and services are supported by a public access catalog menu, and we also have access to—over here you see this little dog. This is Seymour, the information retriever. We are not calling it a "dog-a-log," but it is the model we have used, and it is incredibly successful in its testing phase, and by summer, as someone mentioned, we will all be connected. Of course, we have a button for everything.

In our library, we have been very fortunate to have this service. We are a member of the CARL system and are connected not only to libraries in the University of Maryland system, but also to over 200 libraries around the country, and that connectivity is a very important issue these days, and those libraries who bought systems that were not connected are now having to make that connection.

We also have had a longstanding commitment to making our buildings accessible, and I provided you a little brochure that shows the accessible sites and services that we have in our county.

I just want to cite the recent grant that we got. It was about $108,000 of LSCA money and will allow us to plan for the installation of the new and enhanced technologies that I mentioned earlier. For example, PC's and a fax machine for our special needs library, where we have a number of specialized resources, specially equipped PC's for 10 of our other public libraries, and microcomputer enhancements for CD-ROM workstations. Also, it will allow us to modify many of our public service desks.

In conclusion, I just want to reiterate that the health of our people will depend not only on a comprehensive health care plan, which I am sure you will eventually figure out, that will leave no person without health care, but, equally important, the health of our citizens will depend on the consumer health information serv-

ice that will allow them to take responsibility for their own health—I am certainly not the only one who said this—but also to participate in their own health care.

To conclude, the health of our libraries will depend on continued Federal funding, including local taxes for basic support and State funding for equalization, and Federal funds to build and enhance the information infrastructure to provide the tools for sharing the library and information resources between all libraries, and to help remove the barriers.

Finally, because ultimately the health of our democracy will depend on strong public school and academic and special libraries that are full players in the telecommunications systems—and this is an important point to conclude with—a system that will be designed so that ordinary people, as well as students and scholars and researchers, can easily use, with public access sites and services at all of our public libraries connected to all other libraries, as well as to the very interesting civic computing networks that many of us librarians have been very active in developing.

Thank you very much.

[The prepared statement of Ms. Griffen appears at the end of the hearing record.]

Senator SIMON. Thank you.

Mr. Ubel.

Mr. UBEL. Thank you, Senator Simon, for inviting me to come this morning.

I am Executive Director of the Shawnee Library System, which serves 32 counties in southern and southeastern Illinois. This is a service area of some 12,000 square-miles, very rural, and, as you know, Senator, much of the area is economically disadvantaged, and we serve 211 libraries that are public, special, college and school libraries.

Technology has come to this rural area of Illinois that is disadvantaged, and it has come to libraries. Twenty-one of our libraries currently are online sharing with each other. We will have 36 by this summer, and more than 50 a year from now.

In addition to that, more than 100 of our 211 libraries have dial access equipment. Yet, there are barriers in these libraries between their ability to have the equipment and afford the equipment and their actual ability to access information. The biggest barrier is the high cost of telecommunications in rural areas.

In the early years of our network, we saw increases in telecommunications costs, these are data communications costs, of at least 100 percent, and sometimes 200 percent, due to deregulation. Small schools and small libraries that are public libraries in these rural areas simply cannot afford the high telecommunications costs. These high costs are also a disadvantage to the private sector.

In past decades, we have had a good deal of equality when it comes to accessing print information. A first-class postage stamp can send a letter across the street or across the country at the same cost, and we have preferential postage rates for libraries for newspapers in rural areas. We need to work toward achieving a better equalization of access to electronic information, in order that our rural areas do not get swept to the side.

I like your analogy of picturing the library in the Internet scheme as being the center of a wheel. I have read others who call the library "the village well," when it comes to access to Internet. This is an important role, if we act as a village well, act as the Internet point of access for others who do not have any other kind of access. But I think we play a much larger role than the village well.

Even in rural communities, librarians are information specialists, and we have an important role to play in helping all citizens get access to information. We have the ability to know what sources of information are available, we know the best way to obtain information, and we can help present information in a form that is suitable to the end-user.

I hope that rural libraries can continue to be part of this information technology picture, but we need the help of Congress in order to maintain that role. And two ways that Congress can help us—and I know, Senator, that you are a long-time friend of libraries—it is my hope that Congress can help to have a general lowering of telecommunications rates throughout rural areas, and it is my hope that we can find a way to provide preferential telecommunications rates for libraries and schools of all types.

It was interesting to me to see and hear the presentation from DC. and to call 727-3852, where citizens can call the library to have access to information like this. In a rural area in southern Illinois, it would cost that user in telecommunications costs somewhere between $7 and $15 an hour to connect onto the same kind of information access that the D.C user has at virtually no cost..

Thank you.

Senator SIMON. I thank you.

Mr. Franklin, we are going to draft you back up here for questions. We are not going to let you get out that easily.

Ms. Griffen, you come from one of the more affluent areas, Montgomery County, and yet you talk about the need for Federal funds. Do you speak for other libraries in your situation, when you talk about that need?

Ms. GRIFFEN. Absolutely. Over the last 4 years, we have lost 44 work-years, we have reduced our hours of service, and we have artificially limited the use of libraries through those actions. Without the Federal funds, we would not be able to do a lot of what we have done. The fight for the local tax dollar, even in an affluent community such as ours, is just cut-throat, as you well know.

Senator SIMON. If I can interrupt, libraries too easily become the easy place to cut, whether it is a college or university campus—how many people are going to notice you are not getting additional books or you have one less librarian?

Ms. GRIFFEN. We probably have the strongest citizens lobby in the county. I mean their voices are heard, and that is the only thing that has kept us from being cut more. Even with the great system we have, and it is excellent and we have been able to invest in the technology over the years, fortunately most of it before the hard times came, we represent less than 1.2 percent of the total county budget. Now, that includes the public schools budget, and we serve 88 percent of the households.

Just to set the record clear, we also have the largest number of new immigrants in the State of Maryland. We have about 60,000 to 80,000 Hispanic-Americans and new immigrant Hispanics. We have a lot of Asian immigrants. We have a cultural minority outreach program to serve the top four languages in terms of numbers. We have great needs we have not been able to meet. Without Federal funds, again, many of these programs, we are lucky in that we are usually able to sustain them, and we are strong believers in continuing Federal funds with local support. We will not do it, if we cannot.

Senator SIMON. Getting that multilanguage material is expense, also, is it not?

Ms. GRIFFEN. Yes. We have not put the money in that we would like to. We are hoping to increase it this next year, because for the first time we actually have a slight increase in our budget recommended by the executive. The council still has to raise the taxes. As you know, in that kind of a community, you know, the choice for elected officials is to run on either cutting services or cutting taxes, and they have a choice.

Senator SIMON. Mr. Franklin and Mr. Ubel, let me touch on something else. Mr. Franklin, you talked about equal access to information.

Mr. FRANKLIN. Yes.

Senator SIMON. Mr. Ubel and Mr. Franklin, you both come from areas where per capita income is below the national average. Here I am asking a question more long-term, not about the immediate future. In the area of schools, we do try to have a formula that recognizes, for example, through Title I or Chapter 1, that impoverished areas need more help than the other areas.

At the Federal level now, our assistance is so small that, frankly, to complicate it with a formula would be a mistake. I hope that the time will come when we will provide greater assistance. Should we be looking at some kind of a formula that recognizes that there are areas with greater need that really have to struggle, as your area does, Mr. Frankly, and your area does, Mr. Ubel?

I asking you this now in your role as librarian of the District of Columbia, not for the American Library Association, Mr. Franklin.

Mr. FRANKLIN. I was just going to say, Senator Simon, since we carry our city, county, State functions, I am the State librarian for the District, but I do not have the problems that other State librarians have, because all of the money comes to the public library and we do not have to divide it up across the State, as is done by other State librarians.

In the District of Columbia, there is no budget in the school budget for materials for libraries. When we had the first White House Conference in 1979, we did a survey of the collections of the school libraries, and they looked in the 500's and the books were 10 years behind in terms of science. And we looked in fiction, in the C's, to see what the publication dates were, the latest fiction books, and they were almost as bad.

When we had the second White House Conference, we again did a sampling of the card catalogs of the holdings of the school libraries, and they were a little further behind in the sciences. So it is very difficult to teach with dated material. Even today, with the

Soviet Union breaking up, the geography that we have been teaching youngsters no longer applies, so they have to have access to then. Some of the CD-ROM's they have some that would have geographies in them, and those would be up-to-date, even three-dimensional, and those are needed in school libraries.

We also have the problem of teachers not being able to accompany students to the library in the schools. There should be a close connection between what goes on in the classroom and the visits to the school library, and sometimes that is missing, because of other kinds of regulations that they have.

In the public library, we serve them all. We have as many college students in our libraries as we have regular customers. I mean they are regular customers, but I mean they just do not go to the college libraries. They come to the Martin Luther King Library, because we have one of the oldest collections. It was established in 1896. That was the beginning of the public library in the District.

We not only provide services to all of the residents of the District, but anyone who owns property, goes to school or works in the District is entitled to free library use. Not only is the individual entitled, but the individual's whole family. And it was not until about 10 or 12 years ago that the Council of Governments established the cooperative borrowing agreement, which allows District residents to use the surrounding libraries of the area.

Senator SIMON. Let me hear from Mr. Ubel.

Mr. UBEL. Senator, I certainly have been a long-time advocate of equalized access to service and of equalized support of libraries. Just earlier this week, we had a legislative committee in Illinois, and there are indications that the library and the political community in Illinois will be working harder on providing some better form of equalization aid to libraries, and I think this kind of aid concept is important at the Federal and the State level.

It has been my experience, and I think this relates to the Internet and also to poorer rural libraries, that it often is easier for schools and libraries to find funds for an initial investment in something. Grant funds are sometimes available. The private sector can use fund-raising. Friends of the library groups are often helpful.

The hard part over the long run is to find funds to continue a program and to support a program. It is much more glitzy to buy a stained-glass window than it is to come up with money year after year to pay the electric bill. This applies to libraries, as well, and it applies I think in particular to the ongoing telecommunications costs that libraries and individuals face year after year after year. There needs to be either a reduction in cost or a more equalized form of funding that can make access to information available to every American.

Senator SIMON. I thank all three of you.

Let me just add, Ms. Griffen, I am impressed by what you are doing in this health care field. It seems to me that this is an area where if people understand libraries are places where you can get access to information, if you have a colon cancer problem or your child has an ear infection or you have breast cancer, or whatever it is that there would be a lot more people in this country who would understand the importance and usefulness of libraries. This

would be the door that opens the library to them in many other ways.

We thank all of you.

Mr. FRANKLIN. Could I just make one point: In order to access the new technology, you need touchtone telephones. This is a problem for a lot of libraries around the country that are using it. Even in the District, we still have rotary telephones.

Senator SIMON. In a great many cases, that is the case.

We thank you. Let me just add our thanks also to your five librarians who I hope, in addition to singing, can do a good job in the library. [Laughter.]

Mr. FRANKLIN. They do very well.

Senator SIMON. Our next panel is Grant P. Thompson, Executive Director, Libraries for the Future, from New York City; Donald Pascarella, General Manager of Harron Communications, of Frazer, PA; and Dr. James Fogarty, Director of Curriculum and Technology, at the Intermediate School District in Mar Lin, PA.

Mr. Thompson, we will call on you first.

STATEMENTS OF GRANT P. THOMPSON, EXECUTIVE DIRECTOR, LIBRARIES FOR THE FUTURE, NEW YORK, NY; DONALD PASCARELLA, GENERAL MANAGER, HARRON COMMUNICATIONS, FRAZER, PA; AND JAMES S. FOGARTY, DIRECTOR OF CURRICULUM AND TECHNOLOGY, PROJECT CONSULTANT TO COMMONWEALTH LIBRARIES, SCHUYLKILL INTERMEDIATE UNIT, MAR LIN, PA

Mr. THOMPSON. Thank you very much.

My name is Grant Thompson, and I am Executive Director of Libraries for the Future, which is a public interest organization that represents users of public libraries.

It is interesting, our panel today is the only panel that is made up of nonlibrarians and users. In my remarks this morning, I would like to emphasize a couple of points on the role of libraries in education in an electronic age.

The hardware and the software we have seen is dazzling and sometimes flowed, but it is important to remember who showed us how it works this morning. It was the librarian. For those of us who were raised on catalogs and bound encyclopedias, it is easy to be beguiled with images of a young person sitting at a computer in Carthage, TN, with the resources of the Library of Congress available on his home computer. How easy it will be, we think, for that lucky child to finish off a term paper in an hour and go out for an evening of softball. And what a disappointment the reality can be, "Better put away the baseball glove and get to work, young man."

The reality is that vast amounts of data pour through the wires arranged, if at all, by computer programmers, instead of librarians or subject matter specialists, while the computer demands we instruct it only in its own language, not ours.

In the midst of computer searches, I often think about Mary Murdoch, the Librarian at South Pasadena Public Library, who taught me and generations of other young people techniques of searching and browsing. Wise children, and savvy adults, too,

learned to discuss their questions with Ms. Murdoch, not only at the beginning of the search, but also as they ran into brick walls.

Mary Murdoch is no anomaly. There was a study recently conducted at Apple Computer's corporate library, which concluded that even with world class computer hardened software, only a trained librarian could put patrons' questions in context, taking into account what he or she knew about the person making the inquiry, and helping to design the search and bring it to a successful conclusion.

We users of America's libraries depend on having adequate resources, including trained staff to help us. No one in this room, no young person in Carthage, TN, and no citizen of Palos Park or Boise, ID, will be able to find or use the resources of the electronic world, without the help of librarians.

But we need more than trained librarians, and that brings me to my second point, which is the importance of a civic public purpose for the national information infrastructure. The dominant vision of information revolution emphasizes the private and the solitary. Computers will be located, it said, in homes and offices, while physical libraries will be obsolete, with buildings to be torn down or recycled into boutiques.

For many with high commercial and economic hopes for the information revolution, the major product will be producing and selling entertainment. The advertisements may highlight hooking up schools and libraries, but the finance officers dream of movies delivered by wire into the home. No one doubts where the real profits lie in this revolution.

What a loss it will be, if this great technological revolution, which has the potential to educate the hard-to-teach, to involve the reluctant citizen and voter, and to unleash the talents of the disabled, who are dribbled away in small sound bytes to the accompaniment of canned laughter.

What can we do to prevent this national tragedy? There are three things that any legislative structure must protect in order to ensure that this great public resource serves us well.

First, certain users and uses of the national information infrastructure deserve guaranteed space on the system, and deserve preferential rates that will permit them to use the system both to reserve and to generate information and programming.

Second, these public users and producers will need hardware, software, training and facilities in order to be full participants in the information revolution. Facilities need to be located in public libraries and other community centers to serve the children, the poor, the bemused adult and the beginning user. Part of the financial assistance to support such public uses should come from the commercial and entertainment uses of the infrastructure.

Third, the values of the public library, freedom of expression, user confidentiality and equal access need to be designed into any system, so that it becomes a forum for free democratic expression. There can never be any guarantee that hardware of systems will truly enhance democratic participation. But unless we find ways to place computer facilities where all citizens can use them, and unless we find ways to train and retrain librarians to serve as information navigators, there will be no chance at all to reserve at least

a part of this new information infrastructure for public and civic uses.

Thank you.

[The prepared statement of Mr. Thompson appears at the end of the hearing record.]

Senator SIMON. Thank you.

Mr. Pascarella.

Mr. PASCARELLA. Good morning, Mr. Chairman.

My name is Don Pascarella, and I am here today with the permission and encouragement of my employer, Harron Communications, whose corporate offices are in Frazer, Pennsylvania.

I am honored to be here today as a user and as a citizen. It is overwhelming. After a 5-year experience with entrepreneurship in Omaha, NE, I decided to return to the cable industry, where I had spent 23 to 25 years. I attempted to do this in Omaha, but my dad took seriously ill and I decided that I could continue the search back in Monessen, PA, where I was born and raised, and relocated in June.

Since I was familiar with the many services and accommodations of public libraries, I decided that I would work with and out of a library, but I was in a dilemma. I was coming back to my home town, where my memory of the library's capabilities was that it was probably ill-equipped to help me. So for about 3 days after my relocation, I pondered a plan that would allow me to travel back and forth to the nearest largest library and still help my parents.

I could not decide how to find out that information, so I decided that Monessen Public Library could at least answer that for me. So I went down there, walked in and, Mr. Chairman, that question was never asked. I walked into a well-equipped, well-staffed, completely capable and willing crew to help me accomplish my goals.

Senator SIMON. Is this in Omaha or Pennsylvania?

Mr. PASCARELLA. This is in Monessen, PA.

The program coordinator for the workplace center, Carol Sepesky, had been fully trained to assist not only individuals, but groups to utilize the center's resources. This included resume writing and composition by computers and WordPerfect software. The staff provided information on job opportunities by way of the Pennsylvania Job Service postings and through employment periodicals, both nationally and locally. The Wall Street Journal was made available to me, and many others.

Monessen Public Library was open 65 hours as week, 7 days a week, including 5 evenings, 6 mornings and 7 afternoons. This was extremely accommodating for my schedule, and I never felt that I had to go anywhere else to accomplish my goal.

As time went on, I discovered many other wonderful services that the library had to offer. Some were applicable for my use, while others were geared toward helping the underemployed, the functionally illiterate, displaced workers, and even provided career information and educational information through Pennsylvania Careers and Discover software and linkage groups, such as the Pennsylvania Department of Welfare. They purchase directories, acquire college catalogs and vocational business school information.

The library also has as videotape of local employers who discuss job opportunities with their firms, including required qualifications,

how to apply, and some of the questions that may be asked during the interview. It is absolutely incredible.

I could go on and on, but the point is this kind of service must be allowed to continue, not only in Monessen, PA, but also the State of Pennsylvania and the Nation. I am sure that there are many towns and cities in the United States that are suffering from the same high unemployment rates, functionally illiterate, and let us not forget our knowledge-hungry and education-thirsty who cannot afford to do anything else but take advantage of their local public library.

In the last year alone, Monessen's Library has assisted over 1,000 patrons in each, the workplace and the computer assistance services, not to mention that they had well over 1,000 patrons requiring other assistance and using reference logs—sterling performance, in my opinion.

The Workplace Project was funded by a grant from the Kellogg Corporation of Battle Greek, in order to assist individuals to find jobs. The Monessen Public Library was chosen as one of 6 original sites in Pennsylvania, because of the high unemployment rate in the Mon Valley area, and the project was administered through the State Library of Pennsylvania.

The funding for this project ended in 1990, and since then the library has depended upon Senator Wofford's successful efforts to provide funding to keep the project going, and upon donations from patrons, and the librarians and the library staff standing on street corner soliciting funds and handing out tags that say "I'm a friend of the Monessen Public Library."

How much money could they possibly raise in an economically depressed area? They and all public libraries need our help. They need your help. They need help of the Federal Government to continue to provide these excellent services. The library should be considered a necessity, and probably have the same priority as the public schools.

My job search ended in November of 1993. On the national level, news of closings of libraries are very disconcerting to me. For where else can we call, regardless of our financial situation, go to gain access to information on education or jobs? Is not the main goal and sole mission of public libraries to make information accessible and affordable?

When we hear of our libraries' decline, what are we really hearing? I think that we are hearing lack of support from both State and Federal agencies. We are not hearing or witnessing lack of support or interest by the citizens of the United States. It is wrong to assume that earning college educations from the resources of the public libraries went out with Andrew Carnegie, or that the how-to of setting up a small business must be learned on our own. I would be willing to bet that there are a number of people in this room who have either received their education or are successfully running a small business as a result of the affordable services of a public library.

For those of you who have the power and influence to reverse the cycle of our libraries' decline, by way of political influence, listen to the voice of the public. Do not lock up our books, do not let the books become outdated, and do not let this internationally envied

American invention become a dinosaur. If we do, the only question to ask is the question asked by William Ecenbarger in the April issue of the Readers' Digest regarding public libraries: How stupid can we get?

Thank you.

[The prepared statement of Mr. Pascarella appears at the end of the hearing record.]

Senator SIMON. Thank you very much for an excellent statement.

Dr. Fogarty.

Mr. FOGARTY. Mr. Chairman, good morning.

My name is Dr. James S. Fogarty, and I am Director of Curriculum and Technology for the Schuylkill Intermediate Unit, Regional Educational Service Agency, in Mar Lin, PA.

In my job, I also serve as consultant to two of Pennsylvania's largest technology projects run by the Pennsylvania Department of Education and the State Library, called Commonwealth Libraries.

The first project, the Access Pennsylvania Database, electronically combines the card catalogs of 1,141 school, public, academic and special libraries onto compact laser disc (CD-ROM), and, incidentally, begun with LSCA funding. Each year, we train almost 1,400 librarians, media specialists and others to use the database.

These individuals, the trainers, go out and train students, teachers, library patrons, and others to use it. This "train the trainers" model has worked well for us for almost 9 years. Eighteen million library holdings have become directly findable by Pennsylvania library patrons, and instruction on how to search the database occurs in 94 percent of Pennsylvania's school districts.

Training is the reason that the project is successful. For the emerging information highways to succeed, training must be provided for all of the users, so that people can learn to use the technology in a meaningful way.

The second project we have helped implement is the Pennsylvania Electronic Mail/Internet Project. It grew from the vision of our Commissioner of Libraries, Sara Parker. She wanted libraries in the Commonwealth to have a system of electronic communications and full access to the resources of the Internet. By providing LSCA funding, we now have 214 school, public, academic and special libraries connected. We trained almost 600 library/media people to access the Internet and to use its resources. We learned a great deal from this experience which may be of help in national planning.

The first lesson was that the training needs of the trainers themselves varied greatly. Trainers with extensive computer experience did a better job of teaching others to use the Internet. But even the experts found some parts of using the Internet difficult. Using the Internet must be made easier for everyone.

We learned that the computer abilities of the patron also varied greatly and suggest that a successful Federal program must be ready to deal with the varied backgrounds of the end-user. This cannot be a highway for just the computer experts. Everyone who uses the information highway will need training, and the Federal Government must consider this fact in its planning. The library/media centers of this Nation should serve as the access points where that training will occur.

Senator, technologists dazzle us with the glitter of the technology. If you remember anything from me today, please let it be this: It is not the technology itself, it is what you do with it that is important. I am suggesting to your committee that the same principle be applied to the information highways. To accomplish the dreams, we need a program, not just a technology. A program implies a vision, goals, objective, activities, training, and evaluation. Without such a Federal vision and program, the information highways will be nothing more than a giant electronic department store catalog and home shopping service. That is fine for business, but it is of limited social value.

The next lesson we learned from our Internet project was a plain and simple one. The Internet needs librarians to organize it. Presently, there is no standard method of cataloging and classifying information so that people can find anything. Our Library of Congress provides this leadership role for all libraries, but that influence is not strongly evident on the Internet, because computer people, like me, are doing the classifying.

Imagine searching for information about the birth of our Nation, when one computer person listed it under Philadelphia, another under Phila., and a third under City of Brotherly Love, then listed related articles under Washington, George Washington, Father of our Nation, or did not bother to list them at all. A librarian would never do that. But that is what the majority of the Internet is like today.

I really hope that my computer guru counterparts can understand the desperate need that we have for the library community to apply its professional skills to the problem. They can get and keep all this information organized, so that people can find it and use it in an intelligent way. The current tools for searching the Internet lack this organizational structure. We want the Federal Government to help build the information highways of the future. But we must let the library community be the cartographers, the map makers of the information highway system, so that the average person can get to all the places he or she needs to go, obtain what is needed and return home again, without getting lost.

The final lesson: A large part of our expenditures in this project went to pay for the costs of the phone calls that connected the libraries to our Internet provider. We need to find alternate, inexpensive on-ramps to the information highway. From the birthplace of cable television, Schuylkill County, PA, I urge you to consider the role that cable can play in providing the on-ramps for libraries. Cable and telephone alternatives can meet our access needs.

Thank you for this opportunity.

[The prepared statement of Mr. Fogarty appears at the end of the hearing record.]

Senator SIMON. I thank you.

Mr. Thompson, you mentioned something that Mr. Ubel mentioned earlier, and that is the possibility of preferential rates for libraries. I would be interested in you or the American Library Association or someone coming up with a specific recommendation that we could take a look at.

Now, it is obviously easier for us to deal with this in postage rates, because we have more direct control. But my guess is that

if we made clear to the telephone companies of this Nation that we want preferential rates for libraries, that they would listen to us. I just pass that along.

Mr. THOMPSON. As you may know, a number of us are working on some proposals to be a little more specific. I think it is important. The preferential rates, after all, are the costs of playing on the field, the hourly rates, the access rates.

I think it is also important that the information revolution is going to generate money by the basketful. It is going to be an enormous economic boon for the winners in that, and I think it is important that at least some of that, because it goes on public space, goes to not only preferential rates, but also some of the things you have heard here today from the librarians, their need for continuing funding for training, for facilities, for programming help, for cataloging.

Since this revolution is going to travel on public airwaves and through public space, it seems to a number of us that, in addition to preferential rates, we also need, in effect, an excise tax on the network providers on all of the user and all of the funds, to help libraries and other public users have good things to put on the highway, and to have the trained people to help the users.

So I think it is important we remember there are two parts of that, preferential rates and then, as somebody said, how do you pay the electricity bill and the computer person at your library this year, next year and the following year. I think that is as important.

Senator SIMON. Mr. Pascarella, I thank you for your testimony. You mentioned that that library you visited was open 65 hours a week. I hope it is still open 65 hours as week. Do you happen to know?

Mr. PASCARELLA. I believe it is until the summer. Those hours are maintain until the summer.

Senator SIMON. A great many libraries, including the Library of Congress, are cutting back on hours. What time did you first visit that library when you made that first exploratory visit?

Mr. PASCARELLA. The traditional 9 a.m.

Senator SIMON. So it was not an unusual hour.

Mr. PASCARELLA. It was not very traditional as far as the balance of their schedule was concerned. There was no time that it was not available to me when I was available to go to it.

Senator SIMON. You mentioned one other thing that is not the topic today, but whenever I am meeting with librarians, I think it should be stressed, and that is the importance of their helping in the literacy effort.

Mr. PASCARELLA. Absolutely. All of this information coming on the information super highway still needs a driver, and that driver is our librarian.

Senator SIMON. And people who cannot read and write or are of very limited skills will not walk in to a grade school or a high school, because they are embarrassed by their situation. They will, however, walk into a library. There is no embarrassment, and that is why libraries are so important.

Finally, Mr. Pascarella, you mentioned that they have tag days for the library there.

Mr. PASCARELLA. Yes, they do.

Senator SIMON. I commend them for doing it. But something is wrong in our society, when we have to have tag days for libraries.

Mr. PASCARELLA. Thank you for getting my point.

Senator SIMON. You know, if we have to have tag days for B-2 bombers, that makes a lot more sense than tag days for libraries. [Laughter.]

Mr. PASCARELLA. Absolutely. Absolutely, sir. Thank you.

Senator SIMON. I thank you.

Dr. Fogarty, you mentioned something that I think is important, that we should not shut some people out of the library, as we move into this new era. As my wife can tell you, I am one of the nonexperts. I still write books on an old manual typewriter. I am still worried about pushing the wrong button and losing a manuscript somewhere.

Incidentally, when the Washington Post had a little item about my typing on a manual typewriter, I found out that Daniel Boorstin still works and writes his books on a manual typewriter, and David McCullough, who did his great book on Truman and did the books on Theodore Roosevelt, works on a manual typewriter. My staff is trying to get me to be more comfortable with computers and everything else.

This is an area that really is important. I do not want people who are 50 years old to be reluctant to go into a library, because there is no longer a card catalog there. Do you want to elaborate on that at all?

Mr. FOGARTY. Absolutely, two points in particular. I want to respectfully disagree with some presenters earlier this morning who said that this technology requires very little training. I was thinking let's take some members of the audience and sit them down at the technology and see whether they can do what the folks who are the technologists were doing. I feel they probably cannot, for the general person.

I feel very strongly that two things need to occur.

First of all, we need to make the organization of the information as easy as it is in a traditional card catalog, so that people know they can find things by title, by author, by subject, and that it is cross-referenced, that there are "sees" and "see also" references to the information.

I think the other point in terms of not shutting people out is that once that information is organized, some model training programs need to be available, so that the average library connected into that Internet can let its average user, with perhaps some intervention from trained librarians, use that information. I do not think we can let people walk in off the street and expect them to utilize the new technologies. And it is not only the older people coming into the libraries, it is really everyone who needs that kind of training. Our younger children have more of an advantage, of course. But people my age need it. Everyone needs it.

Senator SIMON. I think that really is important.

I thank all three of you for your testimony and for what you are doing.

Mr. FOGARTY. Thank you.

Senator SIMON. Our final witnesses are Jeanne Hurley Simon—I have a bit of a conflict of interest in introducing this witness-who

chairs the National Commission on Libraries and Information Science; and Beverly Choltco-Devlin, Director of the Morrisville Public Library, in Morrisville, NY.

Ms. Choltco-Devlin, we will call on you first here.

STATEMENTS OF BEVERLY CHOLTCO-DEVLIN, DIRECTOR, MORRISVILLE PUBLIC LIBRARY, MORRISVILLE, NY; AND JEANNE H. SIMON, CHAIRPERSON, U.S. NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE

Ms. CHOLTCO-DEVLIN. I am Beverly Choltco-Devlin, and I feel that we have seen an over-arching view of the needs of libraries, and I feel that I am here to represent the microscopic view, the view that what is happening in the trenches is real and the impact of what is happening in the trenches is real.

Our library suffered a near-death experience around September of 1992. We had to cut back our hours severely. Our community funding sources sincerely believe in the library, but being from a rural area, the economic recovery has not quite reached us yet.

We had to cut back our hours. Librarians wore extra sweaters, because it is very cold in central New York. We kept the lights off in rooms that were not being used, just a number of things we had to do to keep the library going.

In the spring of 1993, the opportunity to participate in Project Gain, a study and pilot project to connect rural libraries in New York State to the Internet came to my attention, and I jumped on the chance to participate. Fortunately for our community members, we were selected as participants in the project.

All I can say is that magic happened when we got that connection. I really feel that the more compelling witnesses would be the people who are home working their farms, looking for jobs, battling health problems, as the other witnesses have testified to. And I feel that I have a small voice, but that I speak for many, and hopefully strongly.

We have had many successes, and I know that I am to talk about barriers to access, but I would like to do it in the context and in comparison to the success that we have had in our participation in this project for the past less than a year. Remarkable things have happened, and I would like to let you know some of them.

Our Internet connection has assisted by reference ability immeasurably. It is my reference tool of first choice. Our operating budget, including salaries, is under $20,000 a year. We cannot afford expensive reference books, and I would prefer to give no information to my patrons than incorrect information.

Some of those people that I talked about were able to get information about heart operations, tools used in those operations from the FDA information on the Gophers. Teenage girls came in about bulimia. I have had dairy farmers, their attorneys who are working on lawsuits with milk contamination have been able to get information from me and the library.

But I think the most compelling story and one of the most remarkable things that has happened has been the dairy farmer that I told you about. He is 51 years old and somehow managed to get through the 9th grade with less than a 1st grade reading level. When he came to me, he could not read a single sentence. I began

working with him 4 years ago, and we progressed slowly. He had to make up for quite a lot of lost time.

One day I thought that it would be good to start him on the computer, so he began word-processing skills. Then last August, after we got our connection, it occurred to me, it came out of the blue, why don't we send out a message on a list serve, a discussion group, an electronic discussion group to see if there were any other new readers who could correspond with him, to help him hone his skills, give him a sense of self-esteem and a sort of commiseration, I guess, and how it is with people in similar situations. You always like to know somebody else is in the same boat as you.

As a result of that, the response was overwhelming. We got messages from all over the world, actually, and he is now writing to people in Brazil, he is writing to other new learners all across the country. Some of the barriers to that are that, in June, our connection is going to end and he will not be able to write those people any more.

As a result of it, I am moderating two list services regarding literacy. One is for new learners to make pen-pal contacts. The other is for discussion of literacy issues, because, surprisingly, there was not one at the time. I am now the moderator of those two list services, and we correspond with people all over the world. In June, that will have to end, unless our connection continues.

I would like to reaffirm some of the other barriers that people brought up, such as telecommunications charges. With a library operating budget of $20,000 a year, telephone charges of $150 to $200 a month are just unworkable. We cannot meet those charges. Training takes as lot of time.

Because I see that my time is up, I would like to reaffirm the other barriers that have been previously mentioned. There are solutions, potential solutions, and in my written testimony some of those have been offered.

I would just like to ask the Federal Government to please help to keep the magic going, and I would like to not have the plug pulled on our recovering patient. I would not like the magic to go up in a puff of smoke.

Thank you.

[The prepared statement of Ms. Choltco-Devlin appears at the end of the hearing record.]

Senator SIMON. Thank you very, very much. Ms. Simon, in 2 days, we will have been married 34 years. [Applause.]

She has been advocating the cause of libraries as long as I can remember. In the little town we lived in for many years, she helped found the library there. So I am pleased to have Jeanne Hurley Simon as a witness.

Ms. SIMON. Jeanne Hurley Simon is pleased to be here this afternoon, Mr. Chairman.

I do appreciate this opportunity and your patience, and I will try and be as succinct as possible. I have a written statement for the record, which I hope you will allow to be.

Senator SIMON. We will enter both written statements in the record.

Ms. SIMON. I speak today as the Chairperson of the U.S. National Commission on Libraries and Information Science. I think

you will be relieved to know that I have no technology to demonstrate and that I am not going to sing. [Laughter.]

Today's hearing on library roles and the information infrastructure is timely and important and exciting. America's libraries constitute a critical element in the daily life of our national community. Like the highways, roads and bridges that we use every day, the American public depends on libraries for access to information. This is not a new message, but I am going to repeat a lot of it.

Our public, academic, school, State and special libraries exist to satisfy people's need for information, for knowledge, for wisdom and delight. To continue to fulfill society's need for information in the future, America's libraries must be a key part of the emerging national information infrastructure. Our libraries must continue to provide opportunities for access to advanced information services, as well as places for people to find books, to perform research, to take their kids for a story hour, and to participate in community programs.

Many in the library community were encouraged to hear President Clinton mention libraries in his State of the Union Address, the first time we have ever heard the "L" word in a State of the Union Address. The President said: "...we must also work with the private sector to connect every classroom, every clinic, every library, every hospital in America into a national information superhighway by the year 2000."

The National Commission on Libraries is excited and encouraged about this potential for libraries and the vision of a national information infrastructure serving all Americans. But in order to realize this vision, we need answers to several questions.

What barriers must be overcome for libraries to continue to serve our democratic society effectively in the information act? What kinds of information super highway services will libraries provide for patrons? What assistance do libraries need to provide ramps for accessing the information super highway? What training will libraries, library staff and patrons need to use advanced information systems, and how will this training be funded? What will it cost for libraries to access the information super highway, how will they absorb these costs? What Federal funds are needed to connect libraries to the electronic highway and to maintain effective services?

With the commitment or the administration, the support of Congress, the participation of the communications, cable and media industries, we could well see significant advancement for libraries in the next decade.

Or, we could see the role of libraries diminish with the advent of a commercial multimedia interactive information marketplace. The challenge is to understand the role that libraries must play in this new information super highway. The challenge is also to identify the Federal role in support needed for libraries in the information age.

Librarian of Congress Jim Billington, whom you heard this morning, expressed the challenge so well earlier this year, when he said: "Policy-makers must determine how to sustain in this electronic age the democratic and equal access to information that free public libraries have provided in the age of print."

The National Commission on Libraries is considering issues related to the role of libraries in the national information infrastructure. The commission's involvement results from a priority recommendation at the White House Conference on Library and Information Services held in 1991. That recommendation called for the development of a national information super highway network to be available in all libraries and other information repositories at every level.

NCLIS, the National Commission on Libraries, is working to answer a question raised at a July 1993 policy discussion meeting held at the Library of Congress. At this meeting, Vice President Al Gore asked to what degree public libraries can serve as a safety net for access to Internet information and services. The Internet currently—and I would like this brief description of Internet, we use the word Internet, and sometimes we are not sure we all know what Internet means.

Internet is a network of over 10,000 interconnected computer networks that enables individuals and institutions to communicate electronically and to access a host of information resources. Public library access to the Internet can provide improved social equity for the public.

With the assistance of the National Center for Education Statistics and the help of 50 State libraries, the National Commission on Libraries surveyed a sample of 1,495 public libraries about their involvement in the Internet. Seventy-five percent of the completed surveys have been received.

Social equity can be improved by strengthening the role of the public library in our communities. Library on-ramps to the information super highway can expand and enhance access to the educational, intellectual and cultural resources available in the Nation's libraries.

Just as national attention right now is focused on health care reform, national support is needed for our libraries to enter the 21st Century. We need Federal support to assure that all Americans, regardless of economic, cultural or social status or geographic location, will be granted access to the full range of services available on the information super highway.

The information infrastructure offers the potential to improve our Nation's quality of life. America's intellectual heritage is much too valuable a treasure to have the information super highway bypass our libraries.

I thank you, Mr. Chairman, for the courtesy of listening to me.

[The prepared statement of Ms. Simon appears at the end of the hearing record.]

Senator SIMON. I had no choice, really. [Laughter.]

I would just underscore the need for libraries to be very much a part of this, and that is why I am pleased to see a legislative day by the American Library Association. Your voices have to be heard. As usual, I agree with my wife on what she had to say there.

Ms. Choltco-Devlin, why did that dairy farmer come to the library at the age of 51, who could not read a sentence?

Ms. CHOLTCO-DEVLIN. He is now my friend, too, and he has told me that he saw an advertisement on television for literacy volunteers, and our literacy volunteer organization is closely aligned

with the library. The training for tutors is done in the libraries. Many of the tutors and learners meet in the libraries, to put them in a neutral position, a neutral place. He said that he was tired of not being able to read road signs.

Senator SIMON. You mentioned that in June your connection is going to be gone, but you did not explain. What are you talking about?

Ms. CHOLTCO-DEVLIN. We received our connection as part of Project Gain, and you have the final report, hopefully. That was a pilot project which would give us full Internet access for 1 year. Unless we can seek other funding to continue our connection, I know that some other witnesses alluded to the fact that oftentimes there is grant money to start up a project, but there is not the money to continue.

Senator SIMON. And what would this cost?

Ms. CHOLTCO-DEVLIN. To us, since we already have the equipment courtesy of the project, our continuing costs for the type of connection that allows ease of user access, because I do have patron access in my library, I see our role as a two-fold function, and that is to provide information to my patrons, and also I take very seriously the educational component of libraries. I feel that it is my job, as Mr. Ubel I believe alluded to, to provide a place for people who cannot otherwise afford it, to come and get themselves involved in the information highway. People are curious.

Senator SIMON. But in terms of your annual budget, what are you talking about in costs?

Ms. CHOLTCO-DEVLIN. Our annual cost would be $2,600 for the connection plus the telecommunications charges. We were given an $800 stipend which was completely used up in the first 5 months. At that time, I had to kind of pull back, and I always felt that the meter was running.

Senator SIMON. You talked about phone service costs of about $200 a month, is that correct?

Ms. CHOLTCO-DEVLIN. Yes, and it would be more if I had advertised our service heavily. The response was overwhelming. I had people line up to use our connection. I have had to put up a schedule next to the computer. Oftentimes, people come in at peak times. Our library is not open more than 30 hours a week regular times, so that limits the window of use. That is part of a larger issue concerning libraries.

Senator SIMON. First of all, I hate to see a library open only 30 hours a week. I do not mean that disrespectfully to you. I know your resources are limited. How big is Morrisville?

Ms. CHOLTCO-DEVLIN. Morrisville, our chartered service population is 2,700 people, and we have 1,600 of those people who are registered borrowers in the library. There are geographic limitations, which is why I strongly feel that the public library can be the point of presence. We need local points of presence, which is where you dial into.

I have had a disabled journalist, she has an American Online account, and she sends E-Mail through her account to Utica, which is 30 miles away, a long-distance call for her. She sends me reference questions, I look them up on the Internet usually, and I re-

spond by electronic mail to her. There is a toll charge for both of us. It is just an imperative that it be less difficult.

Senator SIMON. Jeanne Simon, how typical is this problem faced by small libraries?

Ms. SIMON. All too typical, Mr. Chairman. Very few libraries, first of all, are connected to the Internet. The majority of libraries are not connected that way, no.

Senator SIMON. What percentage of libraries are connected?

Ms. SIMON. 20 percent right now of public libraries are on Internet. The National Commission on Libraries is currently undergoing a survey of public libraries on Internet. Those are what the population breakdown is and how it can be improved, and we will be giving the Congress a report on that in the near future.

We have heard stories. I had a letter from a librarian in Ohio that wrote me "Dear Jeanne." I do not know her, but it was as "Dear Jeanne" letter, who said we don't even have a telephone in our library. So there are a lot of libraries that are very sadly off that need Federal help to make it a realization.

Senator SIMON. We really ought to have a specific goal in a year or 2 years of all libraries in the Nation ought to be hooked up to the Internet.

Ms. SIMON. We are hoping, Mr. Chairman, that in the wisdom of the reauthorization of the Library Services and Connection Act, that the Federal role in libraries and Internet will be one of the core problems to be discussed and analyzed and reviewed.

Senator SIMON. We thank both of you very, very much.

[The prepared statements and additional material supplied for the record follow:]

TESTIMONY OF HOWARD F. MCGINN
DIRECTOR, EMPORIA (KANSAS) PUBLIC LIBRARY
SENATE SUBCOMMITTEE ON EDUCATION, ARTS, AND HUMANITIES.
APRIL 19, 1994.

My name is Howard McGinn. I am the Director of the Emporia Kansas Public Library. My testimony this morning will be based on my experience as a public librarian, former State Librarian of North Carolina, and as a visiting professor in several Schools of Library & Information Management. My testimony will also be based on 15 years experience in the corporate sector as a sales manager for the J.B. Lippincott Publishing Company and as Managing Editor and General Manager of a New York Times Company subsidiary.

The Emporia Public Library is the oldest library in continuous operation in the State of Kansas. It was founded 125 years ago by a man named Preston Plumb and a group of businessmen in Emporia. It was founded as a tool for economic development. The logic was simple. Emporia, in 1869, needed to lure people travelling on the nearby Santa Fe Trail. Preston Plumb knew that a town with a library was civilized; a town with a library founded by the business community would use the library's information to support businesses and provide jobs. And Mr. Plumb's effort succeeded. Emporia grew and prospered. Mr. Plumb also prospered. At the time he founded the library he was serving as the Speaker of the Kansas House of Representatives. He would soon leave Topeka to serve as a member of this great institution. Preston Plumb served three terms as a United States Senator and died while in office in 1891.

125 years after its founding, the Emporia Public Library continues to serve the information needs of the city and the surrounding seven county area, and the needs are substantial. In the past few weeks, for example, city and county governments have had to confront these information intensive topics: water quality, water supply, waste treatment, toxic waste disposal, cable television licenses, compliance with the Americans for Disabilities Act, expansion by major industries, public school funding, crime control, and a wide variety of zoning issues.

In the past week the public library has provided information to an investment group about opportunities in Puerto Rico, tracked state legislative action through an online database, helped 26 people find employment opportunities through a national job database, helped a plant manager find an executive search firm in Chicago to fill an opening in her company, helped a sixth grade student learn "everything he needed to know about dinosaurs", enabled a woman who had recently undergone surgery for breast cancer obtain information about chemotherapy, assisted local governments with their information needs, and answered several hundred other questions.

This is the information of real life. This is information needed to make life decisions. This is not ethereal data flowing from one supercomputer to another, from one research center to another. This is the type of information provided by public libraries in communities of every size across the United States.

BEST COPY AVAILABLE

But many think that the provision of this information is not important. It is too simple; it serves no research purpose. They think it has no place in the national information infrastructure.

Senator, I suggest the opposite is true. Public libraries and the information they provide must be the driving force behind the development of the information infrastructure. If the investment of public tax dollars in these information assets are to produce a long term profit, the investment must be made in the public libraries. Only public libraries provide the information to local companies and citizens that helps produce the tax dollars to invest, that produces a quality of life that lures industry and soothes the spirit, that gives communities new economic hope and a chance to be a player in this global economy.

In a recent report in NEWSWEEK MAGAZINE, the President of the Japanese corporation NEC was asked how the United States had been able to regain the lead over Japan in broad areas of technology. The Japanese executive's response was very direct. "I keep asking our government to speed up the creation of an Information Highway, like America is doing, but they aren't paying attention." 1.

I am pleased that this committee has given me and others the opportunity to speak. You are paying attention. Many others are not. We must gain their attention. I suggest the following steps be taken to bring attention to the imperative of placing public libraries at the forefront of the development of the national information infrastructure.

First - include public librarians in all information policy discussions. Public libraries represent the information needs of the people of the United States.

Secondly - through legislative and regulatory action make it possible for the people to receive information through their local public libraries. Lift the burden of exorbitant telecommunications costs that exclude so many from the information networks. Make the information generated by the federal government, and paid for by the people, available to the people at no cost.

Thirdly - provide scholarships and other financial assistance for the education of librarians. Massive amounts of information delivered to a town without a library or a trained librarian is useless. We had the will to face educational needs at the dawn of the space age. We must show that same will to face the educational needs at the dawn of the information age.

Finally - help stop the death of public libraries in many parts of the country. If we cannot find the financial resources to preserve public libraries, how will we ever find the methods necessary to inject the raw material of information into the personal and economic lives of our communities.

Senator Simon, I know you often use the analogy of the wagon wheel to describe the role the public library plays in its community. I think the wagon wheel is an excellent symbol because the wagon wheel has been a symbol of the hopes of Americans for over two hundred years. And that symbol lives. Last week I experienced a convergence of all of the symbols we use to describe the national information infrastructure. Just north of Emporia is the Santa Fe Trail. The ruts in the trail caused by the wagon wheels are still visible. I was driving on a rural road that parallels the Santa Fe Trail. The road wound through the Flint Hills prairie lands of Eastern Kansas. There was a bridge ahead of me. The bridge crossed the Interstate Highway that runs from Wichita to Topeka. I crossed the bridge and travelled farther into the gently rolling hills of the prairie. As I reached the peak of a hill, just having passed over the Interstate, and riding next to the wheel-rutted Santa Fe trail, in the middle of the prairie, I passed a cellular telephone tower.

The Santa Fe Trail and the Interstate Highway system helped change the United States because they became the property of the common person. No one was excluded. I urge this committee to ensure that no one is excluded from the electronic information symbolized by that prairie cellular telephone tower. You almost have no choice. If electronic information is to be brought to all of the people all of the time there is only one avenue - the public library. Senator Preston Plumb realized this in 1869 when he started the Emporia Public Library; I urge the Senate in 1994 to follow his example.

Thank you for this opportunity to testify. I'll be glad to answer any questions you might have.

Statement of James H. Billington
The Librarian of Congress

Mr. Chairman, ladies and gentlemen.

Thank you for inviting me here today to discuss libraries and their role in the information infrastructure.

Let me start by saying that, if our unique array of libraries of all kinds did not now exist, they would have to be invented. As we head into this new technological age, no other institutions exist to provide the great majority of Americans -- businessmen, public servants, students, teachers, researchers, professionals, ordinary citizens -- with access to the highest quality and broadest array of information resources. Professional librarians know how to acquire, organize, preserve, and deliver the information that Americans seek in all walks of life. Thus, librarians must be key players as the leadership in both the public and private sectors develops the information infrastructure of the future.

So long as our national goals for this infrastructure include insuring the broadest public access to information, the nation must recognize and sustain its unique library system. At the same time, we in the library community must work together in new ways. We must participate fully in the design, construction, and maintenance of America's new information infrastructure. Information technology, properly organized and supported, can have enormous positive results, just as Andrew Carnegie's public library movement of a century ago gave the general public unprecedented access to knowledge and self-improvement. Today's opportunity is no less grand. The Library of Congress is moving in this direction in four important ways:

(1) by enriching and energizing the existing network;

(2) by creating core content for a new National Digital Library;

(3) by defining the Library's own strategic digital plan; and

(4) by helping lay the groundwork for the network of the future: the National Information Infrastructure.

Let me discuss each of these briefly.

First, the Library of Congress is enriching the existing network by becoming, in recent months, a major presence on the Internet. We now provide free into the Internet more than 26 million records including the entire LC card catalog, summaries and status of federal legislation, copyright registration records, and abstracts and citations to foreign laws.

Over 7,000 people log on to the Library of Congress files over the Internet each day; the Library's staff has designed an easy-to-use menu system (LC MARVEL) accessing LC information and connecting to other resources on the Internet; and the Library is continuing to build new tools to improve access to our resources over the Internet and to make additional materials available.

The Library of Congress is the only institution to make available electronically the images and accompanying texts from all its major exhibits so that they can have a continuing educational impact: Secrets of the Russian Archives, Columbus 1492 Quincentennial -- Meeting of Old and New Worlds, Vatican Library Treasures, Dead Sea Scrolls, and African-American Mosaic. Almost 400,000 visits, for instance, have been made to the electronic Russian exhibit in the commercial network, America Online, alone.

Second, and perhaps most critical to the future of libraries, is our plan to create the core content of a new National Digital Library. We are nearing completion of a five-year pilot program in our American Memory Project, for which we have digitized two dozen Americana collections including prints and photographs, manuscripts, sound recordings, and motion pictures -- a true multimedial database. You will see some examples of this effort in our demonstration.

American Memory is designed to bring the values of our older book culture into the new electronic culture. It will provide a vitamin enrichment for hard-pressed schools and libraries. Teachers will mediate the materials, and young people will get motivated to delve into books in order to answer the questions they themselves ask of the multimedial, interactive material they call up on the screen. Our tests have found that American Memory works well with children even in the 4th and 5th grades -- activating their intellects by stimulating the kinds of open questions that the hitherto inaccessible primary materials of our history inevitably raise, exposing them simultaneously to new technology and old values, memory and imagination. American Memory provides the electronic equivalent of browsing and of making choices.

In delivering our unique collections by electronic means to libraries and schools, our goal is to reinforce local communities of learning. Our role, as we see it, is to be a benevolent wholesaler to the local institutions which, in turn, will be efficient retailers of knowledge and information to students, teachers, and the public.

The National Digital Library will be built in collaboration with the private sector and with materials from other major depositories. The Library's vast existing collections, which are largely based on copyright deposits and include some 104 million items, will provide a base on which to build the National Information Infrastructure. Core material for the National Digital Library will be taken from Library of Congress collections that include most papers of most Presidents up to Hoover, cartoons, photographs, posters, television tapes, almanacs, recorded sound, sheet music, unpublished American plays, in addition to the largest book and periodical, map and movie collections in the world.

The third way the Library is moving into the digital age is by defining a strategic plan covering our future as well as current collections. The Library is attempting to build its capacity to acquire, catalog, preserve, and provide access to a future collection that will be increasingly digital in format; to convert other portions of the current core collection into digital formats; and to integrate both digital and non-digital materials. The Library intends to play a leadership role by developing new approaches to organizing, managing, and preserving digital materials; creating necessary procedures for protection of intellectual property; and acquiring resources to convert current collections to digital formats.

Finally, the Library of Congress hopes to contribute to the electronic future by being an exemplary catalyst for the library community more broadly in building the National Information Infrastructure.

As we and others see it, "content" and "access" are no less important than "technology." Our basic belief is that if the new electronic highways are to serve America, they must do more than simply provide entertainment and high-priced information on demand to the well-to-do at home or in the office. There is a critical need for non-entertainment material that is inexpensive and accessible to the American public. The Library of Congress' collections are part of the nation's "strategic information reserve" that will provide the intellectual cargo on the information superhighways. Local libraries will be the key "information nodes" where people can access a vast variety of information services; librarians will increasingly serve as "knowledge navigators" guiding users to the information they are seeking.

The Library will contribute to the discussion of critical public policy questions, such as support for libraries during this time of transition, protecting intellectual property rights and developing bibliographical standards for the electronic age.

BEST COPY AVAILABLE

Even as the discussion proceeds, we are ever mindful that far beyond all the data, information, and even knowledge that we can accumulate and disseminate electronically lie the true peaks of human accomplishment on which the future of our civilization largely depends: wisdom and creativity.

The business of libraries is the pursuit of truth, the highest form of Jefferson's pursuit of happiness, the surest way to protect us from the pursuit of each other, and the only pursuit in a time of growing physical limits where the horizons for our cherished ideal of freedom can still safely remain infinite.

Libraries are base camps for the pursuit of truth and for the discovery of new truths in the Information Age. They need electronic additions but not electrocution. For librarians are the guardians of institutions central to the American dream where knowledge can slowly ripen into wisdom and occasionally break through to new creation. A better life will come in America, not just from more data and a modem but from a better understanding of one another that comes from books -- and from seeking access to content from others rather than just contentment with ourselves.

Our challenge is to meet the multi-media age head-on, to construct a digital delivery system that promotes the value of ideas, that sends people to books, and that stimulates the active mind.

DEMONSTRATION ONE

Internet Capabilities

The Internet is a loosely configured, rapidly growing global web of 25,000 corporate, educational, government, military, and other networks. It provides communication and resource sharing services to students, scholars, librarians, and researchers, and the general public. In the United States, the National Science Foundation Network (NSFnet) provides the "backbone" or the main artery for research and education (non-commercial) data traffic.

Internet has evolved dramatically from a small R&D communications network created by the Defense Department in 1969 and, starting in the late 1980s, has grown exponentially. The number of users on the network is doubling every year.

The demonstration will include LC MARVEL, an Internet system created by Library of Congress staff which is based on "gopher" software developed at the University of Minnesota. LC MARVEL combines information by and about the Library with easy access to diverse electronic resources available over the Internet, all organized in an easy-to-navigate hierarchical menu structure.

LC MARVEL

LIBRARY OF CONGRESS
MACHINE-ASSISTED REALIZATION OF THE VIRTUAL ELECTRONIC LIBRARY

What is LC MARVEL?

LC MARVEL is a Campus Wide Information System that combines the vast collection of information available about the Library with easy access to diverse electronic resources over the Internet. Its goal is to serve the staff of LC, as well as the U.S. Congress and constituents throughout the world. It is available on the Internet and uses the Gopher software from the University of Minnesota. Since information offered by the system will be viewed by both staff members and users outside of the Library from workstations with varying ranges of characteristics and capabilities, the format of documents on LC MARVEL will, for the most part, adhere to the "lowest common denominator" -- plain ASCII text. In some cases files will be listed that are not in ASCII format (i.e., *graphic images and computer software programs*) which can be saved, but not viewed through LC MARVEL. In the near future, it may be possible to view images and more richly formatted text.

Availability and How to Connect

LC MARVEL became publicly available over the Internet on July 9, 1993. To access it, telnet to marvel.loc.gov and login as marvel. This will connect you to a "courtesy" Gopher client. Initially, only 15 ports will be available to Internal users for direct telnet connection. However, connection is also possible through a local Gopher client, or another Gopher server by pointing to marvel.loc.gov, port 70 *(the 15 port user limit does not apply to this access method).*

Main Menu

The Main Menu of LC MARVEL consists of the following selections:

1. **About LC MARVEL**
2. **Events, Facilities, Programs, and Services**
3. **Research and Reference (Public Services)**
4. **Libraries and Publishers (Technical Services)**
5. **Copyright**
6. **Library of Congress Online Systems**
7. **Employee Information**
8. **U.S. Congress**
9. **Government Information**
10. **Global Electronic Library (By Subject)**
11. **Internet Resources**
12. **What's New on LC MARVEL**
13. **Search LC MARVEL Menus**

Reporting Comments and Problems

Since LC MARVEL will be under construction for several months, the LC MARVEL Coordinators Team is interested in hearing comments, suggestions, and reports of any technical problems that may occur. Please send Internet mail to:

lcmarvel@seq1.loc.gov [redacted]

LC Marvel and Mosaic Demonstration

DEMONSTRATION TWO

Image Scanning and Processing

Image processing, or "imaging," is the process by which digital pictures of any sort are captured, processed, stored, transmitted across networks, retrieved and redisplayed. Digital images can be captured either directly using a digital camera or indirectly with a digital scanner. These images can then be processed digitally to correct colors, crop edges, or to make artistic or creative enhancements. Digital image-processing techniques can also be used to create a composite product by combining two or more images.

The demonstration will include images taken with a digital camera, images scanned from conventional photographs and images scanned directly from paper originals. Several software tools for processing digital images will be demonstrated, as will both color printer output and screen display output. Images reproduced during the demonstration will include pictures from restored murals in the Library's Jefferson building as well as materials from the Library's collection that were included in the current African American Mosaic exhibit.

DEMONSTRATION THREE

Video conferencing and Television Capture Techniques

Communication systems capable of distributing television signals via ordinary telephone wires are very economical in today's environment. Recently developed systems can do this for short distances and also can integrate television signals with personal computers. Using this combination of computer, television and telecommunication technology, either still images or video clips can be captured by a personal computer and converted to digital form for further processing. By adding an inexpensive camera to each station, two-way video conferencing is possible.

This demonstration will include multi-channel video distribution, two-way video conferencing, video capture and image capture from video over ordinary telephone wires using both personal computers and ordinary television sets. An additional component which allows full-motion video to be displayed from digitally stored data also will be demonstrated.

BEST COPY AVAILABLE

STATEMENT OF

HARDY R. FRANKLIN

SENATOR SIMON AND MEMBERS OF THE SUBCOMMITTEE, I AM HERE TODAY IN TWO CAPACITIES, FIRST, AS PRESIDENT OF THE AMERICAN LIBRARY ASSOCIATION (ALA), WHICH IS THE OLDEST AND LARGEST LIBRARY ASSOCIATION IN THE WORLD, WITH A MEMBERSHIP OF OVER 57,000 LIBRARIANS, LIBRARY TRUSTEES, AND FRIENDS OF LIBRARIES AT PUBLIC, ACADEMIC, SCHOOL AND SPECIAL LIBRARIES. AND SECOND, AS DIRECTOR OF THE DISTRICT OF COLUMBIA PUBLIC LIBRARY, MY STAFF AND I STAND READY TO PROVIDE YOU AND YOUR FAMILIES WITH LIBRARY AND INFORMATION SERVICE IN THE EVENT THAT YOU CAN'T FIND WHAT YOU NEED AT THE LIBRARY OF CONGRESS.

AS WE ALL KNOW, THIS COUNTRY IS UNDERGOING AN ENORMOUS TRANSFORMATION. ALMOST EVERYTHING WE DO IN OUR CIVIC LIVES, WORK LIVES, AND PRIVATE LIVES IS CHANGING BECAUSE TELECOMMUNICATIONS, COMPUTING, AND INFORMATION TECHNOLOGY ARE ALTERING THE WAY WE COMMUNICATE, GAIN INFORMATION, CONNECT TO OTHERS, AND EVEN THE WAY WE THINK. SOME SAY THIS CHANGE IS AS SIGNIFICANT AS THE PERIOD FOLLOWING THE INTRODUCTION OF MOVABLE TYPE BY GUTENBERG, WHICH MADE IT POSSIBLE TO DISSEMINATE INFORMATION RELATIVELY INEXPENSIVELY AND WIDELY.

AS YOUR COMMITTEE AND OTHER MEMBERS OF CONGRESS CONSIDER HOW TO BUILD BOTH A STRONG AND FLEXIBLE NATIONAL INFORMATION INFRASTRUCTURE (NII), I WANT TO DRAW YOUR ATTENTION TO THE ROLES THAT LIBRARIANS AND LIBRARIES CAN PLAY TO SUPPORT THE NII.

THE NATIONAL INFORMATION INFRASTRUCTURE PRESENTS AN EXTRAORDINARY OPPORTUNITY FOR LIBRARIES BECAUSE INFORMATION, IN

ADDITION TO BEING OUR BUSINESS, IS OUR MIDDLE NAME. MOST OF OUR MASTER'S DEGREE PROGRAMS ARE IN LIBRARY AND INFORMATION SCIENCE AND THE RESOURCES WE PROVIDE TO OUR PUBLIC ARE A MIX OF TRADITIONAL LIBRARY MATERIALS, SUCH AS BOOKS, MAGAZINES AND FILMS, AUDIO AND VIDEO TAPES, AND NEW INFORMATION RESOURCES, SUCH AS CD-ROMS, AND ONLINE DATABASES, WHICH CAN PROVIDE US WITH ABSTRACTS, OR FULL TEXT UNTIL WE ARE ON INFORMATION OVERLOAD.

AS I LOOK INTO THE 21ST CENTURY, I CAN SEE CLEARLY THAT AS THE INFORMATION HIGHWAY EXPANDS, THIS COUNTRY WILL NEED LIBRARIANS MORE THAN EVER TO MANAGE THE EVER-GROWING MOUNTAIN OF INFORMATION AND TO BRING PEOPLE TOGETHER WITH THAT INFORMATION. INDEED, NO OTHER INFORMATION PROFESSIONALS KNOW BOTH THE RICHLY DIVERSE PUBLIC AND THE RICHLY DIVERSE INFORMATION RESOURCES SO WELL.

BETWEEN US AND THIS MOUNTAIN OF INFORMATION ARE THOUSANDS OF LIBRARIANS, WHO ARE STRATEGICALLY POSITIONED. THANKS TO THEM WE CAN FIND THE INFORMATION WE NEED BECAUSE WE SELECT, ACQUIRE, ORGANIZE, AUTOMATE AND DISSEMINATE INFORMATION. THOUSANDS OF LIBRARIES HAVE AUTOMATED THEIR CARD CATALOGS, AND OPENED THEIR DOORS ELECTRONICALLY SO THAT A GROWING, BUT STILL SMALL NUMBER OF INFORMATION LITERATE USERS CAN SEARCH THE COLLECTION FROM THEIR HOMES AND OFFICES AS WELL AS IN THE LIBRARY AND OVER THE INTERNET.

TO INCREASE THE PUBLIC'S COMFORT WITH HIGH TECHNOLOGY, LIBRARIANS PROVIDE PERSONALIZED SERVICE BY COACHING AND TRAINING. LIBRARIANS OFFER HELP TO THOSE WHO WANT TO TAKE THE MOST APPROPRIATE ROUTE ON THE INFORMATION HIGHWAY WITHOUT GETTING LOST OR TAKING A

LONG, FRUSTRATING, AND LIKELY EXPENSIVE DETOUR. NOW, FOR THOSE OF US WHO NEED MORE HANDS ON GUIDANCE, LIBRARIANS ALSO SERVE AS THE HUMAN FACE OF INFORMATION BECAUSE THEY PROVIDE ANSWERS TO MILLIONS OF QUESTIONS EVERY YEAR OVER THE TELEPHONE, FACE-TO-FACE, AND INCREASINGLY VIA E-MAIL AND ELECTRONIC BULLETIN BOARDS.

AND FINALLY, OUR PUBLIC LIBRARIANS SERVE AS CHANGE AGENTS, INTRODUCING THE PUBLIC TO THE MARVELS THAT NEW TECHNOLOGY CAN PROVIDE BUT WITHOUT LOSING SIGHT OF THE LIBRARY'S ORIGINAL MISSION - -PROVIDING ACCESS TO INFORMATION IN ALL FORMATS -- NOT JUST ELECTRONIC -- TO ALL PEOPLE IN THIS COUNTRY.

I ALSO SEE THAT LIBRARIES, AS AN INSTITUTION, WILL BE NEEDED TO UNDERGIRD THE EMERGING NATIONAL INFORMATION INFRASTRUCTURE, TO THE GROWING, BUT STILL SMALL NUMBER OF AMERICANS, WHO ARE WIRED AND PLUGGED IN, THEIR LOCAL LIBRARY WILL BE ACCESSIBLE ONLINE TO BROWSE, TO LOCATE MATERIALS, AND TO RETRIEVE INFORMATION AND MATERIALS. BUT FOR MANY OF US, THE LIBRARY WILL STILL PROVIDE A CLEAN, WELL-LIGHTED, WARM, WELCOMING AND SUPPORTIVE CLIMATE WHERE INFORMATION CAN BE FOUND AND TRAINED STAFF CAN OFFER HELP.

IF WE ARE TO REMAIN A VIBRANT DEMOCRACY, WE MUST ENSURE THAT ALL PEOPLE LIVING IN THIS COUNTRY HAVE EQUAL INFORMATION OPPORTUNITY, THAT LIBRARIES MUST SERVE AS THE PUBLIC ACCESS POINT, OR THE PUBLIC "ON RAMP" TO THE INFORMATION HIGHWAY. OVER AND OVER AGAIN, I HEAR TRUE STORIES OF HOW PEOPLES LIVES HAVE BEEN CHANGED BY GETTING THE RIGHT INFORMATION AT THE RIGHT TIME. THEIR STORIES ADD UP TO WHAT WE ALL KNOW TO BE TRUE: THAT INFORMATION IS POWER.

ALA HAS BEEN GATHERING SOME OF THESE STORIES ABOUT HOW LIBRARIES

CHANGE LIVES. MANY OF THE PEOPLE WHO WRITE, TELL US THAT THEIR FIRST INTRODUCTION TO A COMPUTER WAS AT THE PUBLIC LIBRARY. I HAVE ATTACHED TO MY STATEMENT A FEW EXAMPLES OF THESE STORIES.

THE TECHNOLOGY OF THE INTERNET ENABLED ALA'S WASHINGTON OFFICE TO ASK FOR INPUT TO THIS HEARING FROM LIBRARIES AROUND THE COUNTRY. I WOULD LIKE TO SUBMIT FOR THE RECORD A COMPILATION OF RESPONSES RECEIVED IN JUST ONE WEEK FROM THIS ONLINE INQUIRY.

WHILE AMERICAN LIBRARIES CANNOT SOLVE ALL THE SOCIAL PROBLEMS WE ARE FACING AS A SOCIETY, I BELIEVE THAT THE PUBLIC LIBRARY MUST REACH OUT TO SERVE ALL SEGMENTS OF OUR SOCIETY IN AN EFFORT TO CLOSE THE EVER-WIDENING GAP BETWEEN THE INFORMATION HAVES AND THE INFORMATION HAVE-NOTS. LIBRARIES ARE DEEPLY COMMITTED TO LITERACY AND LIFE-LONG LEARNING AND TO PARTNERING AND COLLABORATING WITH OTHER PUBLIC, PRIVATE, AND NON-PROFIT SECTOR ORGANIZATIONS TO SERVE THE UNDERSERVED AND THE UNSERVED.

IN CLOSING, I WOULD LIKE TO SAY THAT IF LIBRARIANS ARE TO PLAY THE VITAL ROLES OF INFORMATION MANAGERS, INFORMATION NAVIGATORS, INFORMATION PROVIDERS, TEACHERS AND CHANGE AGENTS, WE WILL NEED SUPPORT FROM THE FEDERAL GOVERNMENT. SOME OF OUR LIBRARIES NEED TECHNOLOGY TO CONNECT THEM TO THE INFORMATION HIGHWAY. SOME OF OUR LIBRARIES NEED FUNDS TO MAKE THEIR UNIQUE RESOURCES ELECTRONICALLY AVAILABLE. SOME OF OUR LIBRARIANS NEED EDUCATION AND TRAINING TO BRING THEM UP TO SPEED SO THEY, IN TURN, CAN TRAIN THE PUBLIC. SENATOR SIMON AND MEMBERS OF THE SUBCOMMITTEE, SINCE THEIR IS NO BLUE PRINT FOR WHAT A LIBRARY WILL LOOK LIKE IN THE 21ST CENTURY, WE, AS A PROFESSION, NEED SEED MONEY TO SUPPORT EXPERIMENTATION, RESEARCH, AND EVALUATION.

I WANT TO THANK YOU FOR YOUR ATTENTION AND CONSIDERATION AND LEAVE YOU ON A HIGH NOTE FROM FIVE OF MY STAFF AT THE D.C. PUBLIC LIBRARY:

MAY 17 1993

PIO

LOOK. LISTEN LEARN

Speak out for America's Libraries

Libraries Change Lives

I believe America's libraries provide a unique service connecting people of all ages to learn and grow and the exercise freedom to know and choose wisely. I believe our nation's libraries must be fully supported in the Information Age.

Help celebrate America's Libraries. Tell us in 100 words or less how the library and/or librarian helped to change your life or made a difference for you or someone you know. Your success story will be used to support the case for library funding with legislators and policymakers at the local, state and national levels and to tell others how the library can help.

Who knows? It could change someone's life.

Your library success story/comments (please type or print)

The library has helped me in many ways throughout my many years in school. It has helped me with term papers, career projects, book studies, and essays. I can receive fast information through the computers and that saves time. The librarians are always eager to help people get th information on any subject that they need information on. They help you on the computers, and they also help you when you need sources for big projects. The library is a very important place in today's society. Without it people would not be able to afford all the books that they possibly would need in their lives. Without the library, people would not have the education that they have today. Christine Konstantopoulos 11th grade

I give permission to quote me for public purposes.

Christine J Konstantopoulos — April 22 1993

Christine J. Konstantopoulos — P.O. Box 1117 — Brookhaven — PA. 19015

BEST COPY AVAILABLE

Speak out for America's Libraries

JUL 14 1993

Libraries Change Lives

[illegible]

[illegible]

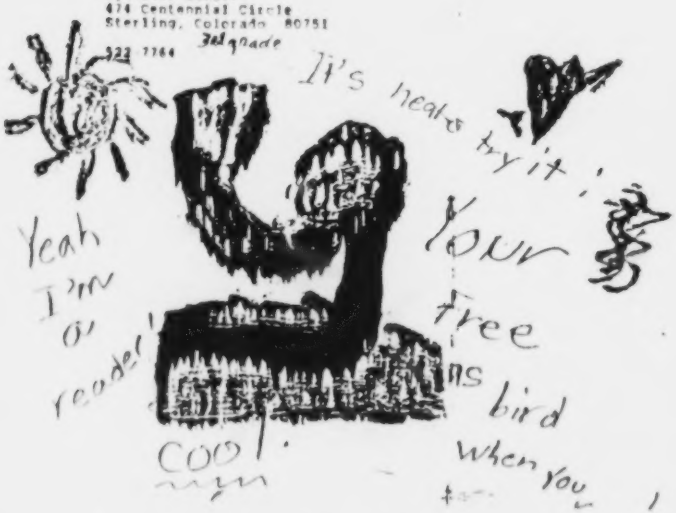
[illegible]

How Libraries Help Me

I think libraries will help me because I want to be a teacher. If I am a teacher someday, then I'll have to use a library. I know that teachers use libraries alot, so that's how they will help me when I'm older.

How they help me by showing how much you can find out just by using a library computer. They also taught me that you can read almost any book you want because your free as a bird when you read almost anything.

Lynnette Bubler
474 Centennial Circle
Sterling, Colorado 80751
522 7764



Technically Lost

In 1991 I found myself without employment. My job skills were now obsolete, even though I could type, file, and do general bookkeeping. While I was not looking someone out there put computers in all local offices. I did not have the necessary skills to establish employment. Everywhere I went to seek employment I was asked about computer skills and knowledge. Finally, I realized the need to return to college. I thought it would be just another machine to learn to operate and if you can type or drive a car you can learn computers. Guess how wrong I was. I decided to take a crash course at my local college. I felt this would be all I would need and I would return to work. When class began

BEST COPY AVAILABLE

the instructor said, turn to chapter three. I was lost from the beginning. I was not familiar with the terminology or any of the equipment the instructor was lecturing on. I had set myself up to fail and soon became desperate. I did not know where to turn so I started calling friends and asking questions but this was not getting me through my dilemma. Finally a good friend of mine, the President of the Columbia County Friends of the Public Library, suggested the computer club which taught classes at the local library. Skeptical but desperate, I decided to try the library along with the local college. The volunteers at the Columbia County Library Computer Club taught me the basics of computer operation, and a special volunteer family tutored me through my college classes. I received an "A" in my crash course and was able to secure a job in the Purchasing Department for Alachua County. I found the Columbia County Public Library to be the ***House of Information*** that helped me find my way through the technical jungle.

Josephine Graham
752-7602

Columbia County
Public Library
Columbia St.
Lake City, Fl. 32055

Want A JOB?
GO TO THE LIBRARY!

I was in the job market. I went to employment counselors, publications, and support groups. They all said - if you want a job, go to the library I was told it contained resources that I needed to successfully compete in today's economy. I learned:
- Who's hiring
- What they're hiring
- When they're hiring

I sharpened my skills on the library's personal computer. In fact, I typed the introduction letter I sent to my current employer at the library. Now I tell others- if you want a job, go to the library.

Name: Tonja B. Cash
Home Address: 3715 Buford Highway, NE Apt #6 , Atlanta, GA 30329
Daytime Phone: 404-325-3409

Last Spring our daughter faced surgery for a chronic ear condition. My husband and I weren't comfortable with the Doctor's recommendation, and because we're concerned with rising health care costs, I did some research. By accessing a Medical Data Base on the library computer, I located several pertinent studies from the Journal of the American Medical Association.

That information enabled us to discuss the situation with the Doctor from a more knowledgeable viewpoint, giving us the confidence to not elect for surgery. We're grateful for easy access to information which helps us to make informed decisions deeply affecting our lives.

Janet Lia
9314 40th Ave. NE
Seattle, WA 98115-3715
(206) 522-1937

35 years old

Northeast Branch, Seattle City Library

SOME HOPE AFTER ALL

In 1991, my son Jeff was severely injured in a motorcycle accident. My wife did not believe the doctors when they said there was no hope for Jeff and that he should be relegated to a nursing home.

After taking Jeff home, we decided to try to find out if anyone, anywhere, had demonstrated success with comatose patients.

Using the Tulsa Central Library computerized card catalog, we discovered a book on Coma Arousal. After months on the stimulation program, Jeff is no longer in a coma. We still have a long way to go, but we are making progress.

Contributed by: Larry & Emma Leising
9 Royal Dublin Lane
Broken Arrow, Ok, 74011
918-250-8623

DEC 14 1994 11:03 FROM AMERICAN LIBRARY ASSOC TO 12025477363 P.03

The Noel Wien Library is the only library I've known and it has greatly influenced my schoolwork and pastimes. While researching specific subjects for school, the library aided me greatly. When typing was required and my family's typewriter was broken, I was fortunate to have my local library supply me with one. The "touch screen" computer was the first computer I was introduced to. Thanks to that first introduction, I am now working on my family's own Macintosh Performa 200.

by Destiny Bradley

Statement of
Agnes M. Griffen, Director, Department of Public Libraries
Montgomery County, Maryland
Representing the American Library Association

Good morning. Thank you for the opportunity to speak to you today. I am Agnes Griffen, Director, Montgomery County Department of Public Libraries. I am also appearing on behalf of the American Library Association, a nonprofit, educational organization of nearly 60,000 librarians, educators, information specialists, trustees, and friends of libraries.

I will be focusing this morning on the vital role which public libraries can and do play in helping people make informed decisions about their health. Also, I will be describing how our library sites and services are implementing provisions of the **Americans with Disabilities Act** to make all libraries and services fully accessible. In each of these areas, funding through the Library Services and Construction Act (LSCA), has made a major difference by enabling libraries to provide essential information and resources to those seeking support, often in critical and life-threatening situations.

Let me begin by asking if any of you ever had a health question and weren't quite sure where to find the answer? If so, you're not the only one--household surveys over the past ten years have shown that health information is the number one statewide information need. At the same time, surveys indicated that most people were not aware that their library even had health information!
Even among people who asked doctors and other health professionals for information, nearly half said they required more and better information than they received.

That's why Maryland's public libraries have spent the last three years updating and enhancing our health information materials -- and training our staffs -- in order to meet this number one need of our communities. Sponsored by the Division of Library Development and Services (DLDS), Maryland State Department of Education (DLDS), the Health Information Project (HIP), which includes twenty-one public library systems and three regional library resource centers was specifically designed to address this concern. As a statewide effort, the project encompasses most local libraries, many of which are working with groups and health agencies to provide the latest health information and resources to community members.

In particular, four libraries--Enoch Pratt Free Library--Pennsylvania Branch, Howard County Library--Savage Branch, Kent County Public Library and St. Mary's County Memorial Library--Lexington Park Branch were selected as pilot sites to represent the urban/suburban/rural, and large and small library systems in the state. Staff were assigned as liaisons to these libraries, who worked with a marketing consultant to test market strategies for providing health information to targeted populations, particularly infrequent or non-library users.

Title I LSCA money -- $100,000 over a three-year period -- was used to support the project. Grants were noncompetitive and awarded annually. A total of $18,375 was given to each pilot site and $9,300 to each participating library; the remainder of the funds were spent on the regional library resource centers, the State Library Resource Center and on marketing services. More than $50,000 is being spent in FY94 for designing, implementing, and evaluating a public awareness campaign.

Staff specialists organized a two-day Health Reference Interview training package, and more than 650 library staff across the state received training on conducting health reference interviews. In addition, librarians worked with specialists to create a core list of reference sources for a model health reference collection. Updated health information is now widely available not only on video and audio tape and in pamphlets and other reference materials but also in the newest technologies--electronic databases and CD ROMs.

None of these efforts would have been possible without the support of LSCA funds. These precious dollars are responsible for providing the opportunity to institute training programs for staff, purchase specialized resources, and publicize the broad range of health-related materials that are available and easily accessible in our public libraries.

The public awareness campaign, entitled "Health Info to Go," formally runs only through May 31st. However, it establishes the foundation by which public libraries will be able to engage in collaborative efforts with local health providers, business leaders, schools, and government officials to promote their health information services, programs, and activities.

As a result of the efforts I have described, Maryland's public libraries have become a key source of health information for consumers!
Montgomery County's Department of Public Libraries, through its own Health Information Center (HIC), located in the Wheaton Regional Library, also is participating significantly in the statewide campaign.

The HIC, officially dedicated on May 17, 1989, was launched with LSCA grant support. A three-year LSCA grant (1988-1991) was obtained from the Maryland Department of Education, Division of Library Development and Services with matching funds being provided by Montgomery County. The grant was ultimately extended one year to focus on services for the senior population. Also, the collection was expanded in such areas as homecare, depression, and Alzheimer's Disease. A Senior Van (now no longer running because of budget cutbacks) was outfitted with HIC materials and directed to targeted senior centers in the County. Discussions were scheduled on health topics with follow-up consultation available from health care specialists including dentists, podiatrists, and insurance counselors. Glaucoma screening, testing of hearing, and blood pressure testing were among the services offered. A Senior infoline (still maintained) also was established, which enables seniors to call in and leave recorded messages at any time. Staff return these calls within twenty-four hours.

Although each of the twenty-three libraries in the County system contains general information on health issues, the HIC is unique in housing a specialized collection of approximately 7,500 circulating volumes and videotapes and more than 1,400 reference textbooks, directories, etc., over 100 journals and newsletters, government documents and an especially fine collection of pamphlets--all dealing with various health concerns. Electronic databases and information on CD-ROM further enhance the collection. Materials are pulled together in a unified way and arranged in a comfortable area--easy for browsing, with tables available for research or reading.

Emphasis is placed upon consumer health needs. Among the topics covered are specific medical conditions and diseases, pre- and post-natal care, child health and development, exercise, diet, nutrition, men's and women's health issues, finding a doctor, nursing homes, prescription and non-

prescription drugs, alternative medicine, health careers, and, of course, coping with the high cost of health care.

The HIC also features health-related programs such as blood pressure screenings, conducted by American Red Cross volunteers, every third Wednesday from 10 a.m. to noon; seminars, too, are regularly scheduled, covering subjects like asthma, high blood pressure, emphysema and menopause. Similar to its counterparts throughout Maryland, the HIC also is actively engaged in cooperative efforts with other County agencies such as the Health Department and Department of Family Resources, as well as businesses and other organizations to inform residents about the library's health information resources.

Specially trained and expert staff at the Center not only help patrons locate the correct information but also respond to about 700 questions each month from telephone callers and visitors.

For example, of the thousands of questions asked at Wheaton's HIC, allow me a moment, if you will, to share just one...

> A young man, age 27, was referred to the Center from the National Library of Medicine. He was calling from New Jersey. He had been diagnosed with Testicular Cancer by one urologist from Sloan Kettering in New York, and another urologist from Johns Hopkins said that there was a strong probability that it was cancerous; but, because of the medical history, there was a slight chance that it might not be cancerous.
>
> The patron asked for help in finding information on the contraindications of Testicular Cancer and on this kind of cancer in general. A staff member provided him with suggestions of good questions to ask a physician. Most importantly, the staff person performed a Medline search for information on new techniques and research on this cancer. The staff member also looked for studies that focused on cases that were not cancerous. Furthermore, it was suggested that the patron take this information to a medical librarian and review the search as well as discuss the results with him.
>
> The staff member noted that most of the techniques were being written about in European literature, and that this type of cancer research was predominantly European but could not focus on this with the patron--he had to reach his own conclusions. The staff person also provided the young man with a list of organizations and strongly recommended that he find a support group.
>
> The patron followed up on this information, and, a month later called to let the staff member know that he had talked to seven other urologists and found someone that would consider doing a lumpectomy for a biopsy, instead of completely removing everything as is the standard recommended treatment. Another month passed, and, again

> the young man called to let the staff person know that the mass was not malignant, that the one in a million miracle had happened.
>
> When the staff member initially had talked to the patron, he had sounded confused and bewildered with all the information he was getting. He was able to sort it all out with help from many professionals, but he became an informed consumer and made an informed decision that dramatically contributed to his well-being for the remainder of his life.

Let me add to this that a recent article in "Consumer Reports in Health" (November, 1993) states that a "good patient," not wanting to bother the doctor, is sicker longer and dies sooner than the aggressive patient who finds information from outside sources and asks good questions.

Clearly, the well-informed individual not only becomes empowered to make the right choices and decisions conducive to lowering health risks but also benefits from cost reductions and fewer health care expenses.

In Montgomery County, we also are fortunate to have the online Public Access Catalog (PAC) in each of our public libraries, which contains a lot of information to help anyone begin searching a health topic. You could, for example, determine which branch might have items on the shelf for the subject you need. A simple call to the branch will ensure that the librarian can check the shelf for availability and hold it, or, transfer the material to a more convenient location. Another option would be to call a branch and place a computer hold on the item if it is currently unavailable.

And, bear in mind, that if you have a PC with modem, you can always dial up and access the PAC. Beyond basic materials and books on health, the PAC also offers several significant opportunities for those interested in searching for health information: Magazine Index, UNCOVER, and Business Index (maybe more for health care reform issues). Equally important is the Montgomery County Community Information database (MCCI) on the PAC, which includes organizations, foundations, local agencies and support groups related to health or to a specific disease. MCCI actually includes much more, but health information remains an essential component. To cite several examples, a parent with a child having attention deficit disorder can key in those words as a search strategy and find groups listed that might be helpful as an information source or support group, etc. In a similar

manner, one could find information on groups or foundations or programs dealing with breast cancer, smoking cessation, etc.

A little later on, I will be demonstrating the use of the PAC to seek health and health-related information. I also have brought copies of our brochures, which illustrate how you can access the PAC from home, office, or school, and provide details about the excellent resources available at Wheaton's HIC.

Access to information resources, particularly health information is obviously vital for all library users. Our public libraries are dedicated to making all library sites and services fully accessible.

In fact, Montgomery County Government and the Department of Public Libraries have had a long-standing and major commitment to providing access to individuals with disabilities. Over the last few years, our building renovation projects, as well as new facilities, have met relevant standards at the time of their renovation or construction. And, now, with revised standards, as defined by the ADA, the County is targeting major funding once again. For the Library Department, retrofitting our libraries over the next three years, will total $649,750.

While overall building compliance is viewed on a Countywide basis, programmatic compliance to the ADA is the responsibility of each department within County government. We are making considerable progress toward this end, but with diminished budgets, we are moving less quickly than is desirable.

LSCA funding, however, can and already has made a very positive impact. Through LSCA support, we are moving rapidly toward achieving the goal of full ADA compliance and meeting the information needs of people with disabilities.

Many of our public libraries, for example, are equipped with the following enhancements: audio loops in meeting rooms, closed caption videos (regular and rental collections), closed circuit TV (CCTV) for print enlargement, copy machines with enlargement capability, homebound services (books mailed to patron's home or delivered by volunteers to qualifying patrons), study carrels at wheelchair height, telecommunications devices for the deaf (TDD/TTY), and wheelchair accessibility (parking, curb cuts, aisles, rest rooms, automatic door openers).

Most recently, a combination of five LSCA grants, totaling $108,000, was awarded to our Library System. These funds will enable us to plan for the installation of new and enhanced technologies that are in full compliance with ADA requirements: purchase PCs and a Fax machine for the Special Needs Library, specially equipped PCs for 10 of our other public libraries, and microcomputer enhancements for CD-ROM workstations, the latter of which will extend the Rockville Regional Library's Local Area Network (LAN), itself funded in large measure by LSCA monies. Public Service Desks, both Information and Circulation, also will receive much needed modifications as a result of this funding.

In conclusion, I want to say that I am extremely proud of the leadership role which our public libraries have assumed in providing so many opportunities to access the information we need -- information that, as we have heard today, can help us make the right choices as informed consumers to promote and ensure our own continuing health and that of our families and friends -- indeed, of all those who bring and add meaning to our lives.

Thank you very much.

[Editor's note: Due to the high cost of printing, the additional prepared statement submitted by Mr. Franklin is retained in the files of the committee.]

BEST COPY AVAILABLE

Testimony
by
Grant P. Thompson
Executive Director
Libraries for the Future

Introduction. Good morning. My name is Grant P. Thompson and I am Executive Director of Libraries for the Future, a national non-profit organization dedicated to advocating on behalf of the users of America's public library system. We conduct research designed to understand how American's use their libraries and what they want from them, and we seek to design policies that will direct resources towards accessible, equitable and responsive information service.

I am delighted to be here today to talk about the rôle that public libraries can play in the education and training of a new generation of citizens and workers who will be living in an information-rich world. This is a world that will be quite different from the traditional world in which libraries have operated. For librarians, who long ago mastered their own jargon of "Cutter numbers" and "authority control," even the lingo is new, "gigabytes" and "gophers." Yet adopt we must and library users must be active players in telling libraries and librarians what we want and need from these venerable institutions.

Libraries for the Future (LFF) looks at the world of libraries not as professional librarians or even as a group representing regular and experienced users of libraries. We speak for those who may not realize that their library can be of help or who face barriers of language, education, economics, or experience that separate them from the resources of their library. LFF is *for* libraries, though not *of* libraries. Thus, although I will speak briefly concerning the needs of librarians for equipment and for training (both initial and continuing), the focus of my testimony this morning will be user-centered. I ask "What must our libraries provide in order to serve the under-served, to meet the needs of a nation facing opportunities and challenges beyond our wildest imaginings?"

There is an enormous danger that the vaunted Information Superhighway will be filled with trivialities and commercial gee gaws. Recall the excitement that early promoters felt for the civic and educating functions that television might play in American life and compare those early dreams with the sweet pablum that flows through the airwaves and cables into our homes. Libraries, if they are allowed to take their place as important contributors and participants in the information revolution, will help ensure that Americans have choices, that serious debate and hard intellectual work can be found for those who seek it.

Who Will Be Hurt If We Fail to Support Public Libraries? We need to understand who will suffer if the nation fails to move its public library system into the information age. They will include the children, the poor, and those seeking work. Consider these facts:

- *Children as Library Users.* Today, children are one of the major user groups of most libraries. A survey conducted by the U.S. Department of Education reported that 37 percent of library users were children fourteen years or younger.[1] Over the past ten years, circulation of juvenile materials is up by 54 percent. A recent survey of fourth graders by the National Center for Education Statistics showed that more than three-fourths of the children interviewed reported taking books out of community libraries on a weekly basis, more than reported watching three or more hours of television per day.

- *The Poor.* Many people in the middle class no longer think of libraries as their primary source of books. Paperbacks and mass marketers have increased book sales enormously in the past decade. Yet for the poor the public library remains the source of choice for information, for recreation, and for assistance. Close the libraries — or starve them so they can't be full partners in the electronic age of information — and you close the doors to the "people's university."

- *The Job-Seeker and the Small Business Person.* Libraries, particularly libraries with specialized business collections, serve a special need for those out of work, who can find information about companies where they are seeking employment, names and addresses of corporate headquarters, and information on the health of particular industries. For the small business person — traditionally the engine of economic growth in this country — the library can be the tap into the wealth of economic data collected by government, to survey advantages of particular locations, and to learn from the experience of others. Increasingly, these data are being distributed on-line or in formats (such as CD-ROM) that can only be accessed with computers.

In short, when we cut off libraries, we hurt both the most vulnerable in our society and those who are developing new businesses that will fuel future growth.

The Citizen-Participant as an "Interest Group." There is another "interest group" that will suffer if we fail to make libraries full participants in the electronic information age. This group is harder to define, has few lobbyists, and, in a cynical age, sounds almost naive to mention: This group includes all Americans who need and want places (both physical and electronic) that promote lively civic discourse, that enhance a sense of community in an increasingly polarized society, that inform and delight the mind and the soul of being an American. Libraries truly serve as civic integrators: places where community meetings may be held in an atmosphere that encourages serious discussion; places where the young and the old meet naturally in a setting where adults can naturally be rôle models to children. To the extent that libraries become less useful, less attractive in an electronic age, less able to provide the wealth and variety of services to their patrons, these essential functions of community building will die with them. The loss, although hard to estimate in dollars and cents, is real. It is one that every person who has read books to his daughter on a Saturday morning in the public library or who has studied the local school budget with her League of Women Voters group in the library's community room will recognize.

For each of these groups of users, for the economic health of the nation, and for the liberating, civilizing, community-building effects of the local public library, we need to be sure that we keep libraries at the forefront of the information age.

Needs of the Libraries and the Librarians. We start, as we must, with the needs of the libraries and of the professional librarians. If users go to their libraries and find that they are not connected to electronic databases or if the librarians can offer no more than instructions on how to turn on the computer, the promise of the information age will be frustrated.

Librarians themselves can talk more knowledgeably about the best ways for training librarians in the new technologies and how to keep them up-to-date with changes. I will make only a few observations.

New Search Paradigms. First, experience has shown that searching for information using the new technologies is powerfully different from looking in traditional bound reference volumes, running one's eyes along a shelf of books, or thumbing quickly through a card catalog. Although computers can process prodigious amounts of data quickly, they do it without subtlety or intelligence. A recent article in *The New Yorker* lamented the passing of the card catalog, with its generations of notations, "See also-s" and other subtle guideposts to the informed patron.[2] Many new full text search programs require the user to guess what words or word patterns authors might be likely to use to describe the information sought. Who, looking for essays on being young and in love in Paris before World War II would think to look for the words "mandarin sections drying on the radiator"? And, having missed those words, would fail to find M.F.K. Fisher's essays on living with her husband, young and in love and in Paris.

What is needed is clear thinking and hard work on how we train librarians to search for information in a world that will no longer be described by Melville Dewey and whose search techniques are fundamentally different as an intellectual exercise than the old systems of catalogs and books. Increasingly, the librarian of the future will have to be a Renaissance woman or man, comfortable with a variety of subjects and aware of the possibilities of connections and analogies. A worthy Federally-funded project would be to ask some gifted teachers of library science to develop hints, strategies, and methodologies that can be taught to librarians generally for working with these new electronic finding aids.

Courses in Library Schools. Second, schools of library and information science need to be certain that they are training tomorrow's librarians to be literate in the new electronic world in which they will work. As noted above, even as they learn these new skills, librarians must not lose sight of their humanistic origins. In addition to their knowledge of hardware, they must be able to help their patrons select and synthesize knowledge from the flood of data that electronics will produce. Many schools have met this challenge; no library school worthy of the name can ignore the need.

On the Job, Continuing Education Courses. Third, librarians and other library personnel who are working on a day-to-day basis need to find the time and the courses organized to help them keep up-to-date on new technologies and new search strategies. A system of on the job training should be a part of every public library system, to the extent such a system is not now in place. Like physicians, business people, lawyers, and accountants, a continuing education requirement would make sure that our information navigators know how to use the new compasses that technology will provide to them.

Training Today's Working Librarian. Finally, the large group of existing librarians need to receive basic training in using the new technologies. Librarians who have been on the job for ten, twenty, thirty or more years, represent an enormous resource. Much of the funding for this massive re-training will and should come from local or state budgets, but pilot training materials and course outlines would be another worthy Federal project.

Training the User Community. The community of users of America's public libraries is not homogeneous. Thus, the training that users must have also needs to be targeted. Let me deal with three groups who need special attention: young, adult, and non-English speaking or reading users.

Young Library Users in the Computer Age. Popular folklore is full of stories of children taking to computers as naturally as earlier generations took to the telephone or the VCR. Whether for the word processing capabilities of the computer or the ability to surf the Internet, many young people are superbly training themselves to be citizens of the new electronic age.

But millions more are being left behind. For some, it is a matter of natural inclination or ability. Unlike their computer-literate friends, they need extra attention or some task or goal that will hook their attention and open up the possibilities of the information age to these slower or more reluctant users. Yet who is going to undertake this job? It is unlikely to be the parents who are themselves uncertain about using the computer. Hard-pressed schools can help, but the burdens placed on the schools already have overwhelmed many teachers, and many of those most at need have already failed in school and are unlikely to turn there for success. Libraries and librarians are an important source of training. How many among us first got our love of reading and learning from story hours at the library? How many among us memorized the Dewey Decimal System, mastered the author and subject catalogues in order to find books that captured our imagination? And, in addition to our parents, who stood beside us while we searched and learned: it was our children's librarian. In exactly the same way, librarians equipped with the training, the equipment, and the access will stand beside a new generation who must learn to use distant data bases, search paradigms, and interactive searches.

Not all children come from homes that provide computers. For these children especially, the public library can provide a pathway out of a circle of poverty and lack of opportunity. If these children become comfortable at an early age with the electronic world of information (and the physical world of books as well), they will be better equipped to move into the mainstream economy.

Adult Users of Library Services. In many ways, the adult population is even more difficult to reach than the children. Children accept the computer and what lies behind it as naturally as we accepted what our parents considered the miracle of television. Adults are afraid of failure, afraid of appearing foolish, caught in grooves of habit and comfort. Libraries need to develop programs that will beguile reluctant adult users onto the information superhighway.

For this purpose, libraries and their suppliers need to develop "soft" curriculum devices that instruct just enough and that allow adult users to experiment, fail privately and not disastrously, and have early successes that encourage further exploration. Whether this soft curriculum comes in the form of intelligent help screens on terminals, posters, peer guides, or classes and lectures organized by the library but conducted in the community, its development will require thinking, creativity and resources.

Non-English Speaking/Reading Users. America is becoming more culturally diverse; old assumptions about language and literacy no longer hold true. Yet among this group may be found those most in need of help from their public library.

Electronics is admirably suited to help smooth the transition into the mainstream society for non-English speaking/reading adults and children. Whether using tutoring programs, which are infinitely patient (and, sadly, often infinitely dull) or information resources available through the network in the user's native language, the information revolution can provide resources to these users, no matter where they are located.

Libraries, if they are going to serve these populations, cannot afford to rely on electronics alone. LFF work in San Francisco indicates that at least some young recent Asian immigrant mothers thought that the library was a part of the police state, organized to collect information about the users to go into permanent files! Many libraries have been community leaders in dealing with a multi-cultural society, with collections in many languages and librarians able to communicate with patrons. Likewise, libraries have been a vital resource in the fight for adult literacy (a fight we are losing, incidentally). We can't be simply dazzled by the offerings of hardware and software without also investing in the "flesh and bone software" of librarians trained in and sensitive to the cultures of the patrons they serve.

Other User Communities That Need Special Assistance. There are other large groups that are worthy of special attention from the library community; the following are only examples:

- *Disabled Americans.* Libraries have been leaders in using electronic information technologies to assist patrons with special needs. CD-ROM players coupled with Braille-translating software can open up reference works available in that format to the blind; voice cards or special software can read the screen of a computer. Technology can and must be the doorway through which these Americans can move to become full and equal participants in civic and economic life.

- *Persons Seeking Preventative Health Care Information.* Throughout the nation, people are looking to their public library as a source of accurate, confidential information about health. Librarians in some places have responded to this interest with imaginative, electronically-based systems. For example, the HIV Information Center in the West Hollywood (CA) Public Library provides up-to-the-minute information through the AIDS Information Network, a database that connects to leading research centers and the Centers for Disease Control.

- *Citizens Seeking Information on Governmental Actions.* At the federal level, information is daunting to locate; at the state and local level, it can be nearly impossible to find out what is planned or has occurred. Yet electronics can make a difference. The Pasadena (CA) Public Library Public Access Library System (PALS) includes a community calendar of events, directories of local elected officials, community organizations and school facilities, and local statistics relating to population, education, health, housing, and businesses. Pasadena residents can access these databases using computer terminals located in each of Pasadena's nine library facilities and through personal computers from homes, offices and community centers. The Iowa State Library is leading a project that will link all libraries, educational facilities, and businesses on a massive fiber optic network. When completed, 2,800 miles of fiber optic cable will connect the State's 99 counties. Along with its use for communications, the network is being considered for voter registration and other governmental services.

It is fair to say, in summary, that at this point we can hardly conceive of the uses of the electronic superhighway. In his book on the introduction of the telephone into different societies from its invention until today, Peter Young observes that at first

the telephone was considered simply a novelty; the once mighty Western Union Telegraph Company refused an offer to buy the patent at a bargain price on the grounds that it had little or no commercial value. Users didn't know how they would accept the device into their daily lives; for many years, it was thought to be principally a broadcast device to allow the homebound to hear Sunday sermons or notable concerts.[3] Who, bound by those limited visions, would have imagined the facsimile machine, voice mail, the Internet, and cable television? In just the same way, the information revolution has ramifications that are nearly impossible to predict from where we stand. Yet we know that the sooner that more and more people are freed to roam through the groves of data and wisdom that this revolution will make accessible, the faster users will invent uses beyond the dreams of the system's inventors.

Libraries provide a test bed, a training ground, and a place for those who are timid, inexperienced, young, or face special challenges to be part of that revolution.

The Federal Rôle for Libraries in the Information Age. Despite the fact that libraries are considered an almost uniquely *local* institution in America, there is an important Federal rôle that has been overlooked in the past. This oversight at the Federal level begins with financial support. Over 80 percent of library funding comes from locally-raised tax dollars; out of a total annual revenue from all sources of around $5 billion, Federal dollars account for only about $140 million. (Unfortunately, the flow of Federal dollars has been declining during the past two decades; compared to the 1960s and corrected for inflation, the Federal commitment to libraries is less than half of what it once was.)

America's system of public libraries, taken together, constitutes an irreplaceable *national* resource. Although we like to talk about a *new* National Information Infrastructure, in fact America's library system amounts to an *existing* infrastructure. Its national value can be seen from at least two different angles.

- First, at the heart of a self governed, democratic society is an informed citizenry, active in their own communities. Libraries can and do provide that physical place that allows people to meet and discuss and the information resources to make that discussion productive and grounded in facts. Moreover, they have the resources of information and serve as powerful reminders of the wisdom of the past and the opportunities of the future. The nation benefits when citizens take part.

- Second, local libraries will increasingly become a national resource in an electronic age when, for example, the resources of Cleveland's superb collection are instantly available (perhaps even in full text form) to library users in the Florida Keys and the North Slope of Alaska. In a way that is difficult to imagine, libraries will increasingly become producers of information, suppliers into the web as well as takers from the well. The strength of the system will be increased enormously as its parts become strong.

At an earlier point in the nation's history, we collectively engaged in a major program of building a library infrastructure. Although we usually only remember Andrew Carnegie's individual philanthropy in building over 1,600 libraries, less well known was the commitment he exacted from those receiving a Carnegie Library that they provide a stream of public funds to maintain and improve on the original gift. In other periods, the country has put resources into its tangible and intangible capital assets. At Libraries for the Future, we believe that there should be a national commitment to the new electronic infrastructure, a commitment that

puts libraries at the heart of a national training and education program. The existing infrastructure of libraries must not be discarded: It is too valuable; the resources it represents will continue to be useful in the future. Electronics are additive in their value; books and particularly librarians will never be obsolete.

This new commitment also needs to be carried out in a public/private partnership. We see five components of Federal action that should be a part of any plan for America's libraries in the next century.

- First, there needs to be a single place within the Federal government and within Congress where library interests are represented. The current non-system, which spreads funding and responsibility among Cabinet agencies and (to some extent) among Congressional committees obscures the value of libraries and makes it easy to shave funding and programs in a piecemeal fashion.

- Second, we believe that libraries need to continue to receive direct Federal funding, whether through the Library Services and Construction Act (which the Administration has proposed cutting), or though some new vehicle that continues to encourage innovation and cooperation among the nation's libraries.

- Third, we believe that libraries (and certain other institutions serving the public interest) deserve preferential rates for electronic service, including both preferences on access and usage charges. These lower rates would recognize that the public asset of bandwidth and use of streets and airwaves need to be paid for in part by money dedicated to the public good.

- Fourth, we believe that — in addition to preferential rates — libraries of all types should be eligible for subsidies to be drawn from an expanded Universal Service Fund. This is a concept taken from the world of telephone regulation that should be extended to services in public spaces for those who cannot afford them otherwise or who need training and guidance in their use.

- Finally, we believe that in addition to the Universal Service Fund, there should be established a national Public Telecommunications or Public Networking Fund to support local non-commercial information infrastructure, including the local public libraries. Eligible uses should include purchasing of telecommunications services, building capacity of intermediary institutions (schools, libraries, and community access centers), and filling reserved electronic greenspace by funding civic and community networks, non-commercial programming, and educational programming.

Taken together, these specific proposals would ensure that libraries continue to receive the "traditional" Federal funding and would add to the mix preferred rates and money for training, program production, and other public uses.

Conclusion. Libraries for the Future and the users of America's public libraries whom it represents are honored to have been asked to contribute our thoughts to this important hearing. We look forward to working toward the goal of an electronic future that increases both wealth and wisdom in an equitable society.

Thank you.

PUBLIC LIBRARIES - SENATE WITNESSING APRIL 19,1994

GOOD MORNING. MY NAME IS DON PASCARELLA, AND I'M HERE TODAY WITH THE PERMISSION AND ENCOURAGEMENT OF MY EMPLOYER, HARRON COMMUNICATIONS CORP. WHOSE OFFICES ARE IN FRAZER, PA.

AFTER A 5 YR. EXPERIENCE WITH ENTREPRENUERSHIP IN OMAHA,NE, I DECIDED TO RETURN TO THE CABLE INDUSTRY. I ATTEMPTED TO DO THIS IN OMAHA, BUT MY DAD TOOK SERIOUSLY ILL AND I DECIDED THAT I COULD CONTINUE THE SEARCH FROM MONESSEN WHILE HELPING MY PARENTS, SO I RELOCATED TO MONESSEN(WHERE I WAS BORN AND RAISED) IN JUNE OF LAST YEAR. SINCE I WAS FAMILIAR WITH THE MANY ACCOMMODATIONS THAT A PUBLIC LIBRARY OFFERED, MY PLAN WAS TO WORK WITH, AND OUT OF, A LIBRARY. BUT I WAS IN A DILEMMA. MY MEMORY OF THE MONESSEN PUBLIC LIBRARY (AND MY ASSUMPTION) WAS THAT IT WAS AND WOULD BE ILL-EQUIPPED TO HELP ME. SO FOR ABOUT 3 DAYS AFTER MY RELOCATION I PONDERED A PLAN THAT WOULD ALLOW ME TO HELP MY PARENTS, AND VISIT THE CLOSEST MAJOR LIBRARY, WITHOUT HAVING TO DRIVE TO PITTSBURGH, 60 MILES ROUND-TRIP. I DECIDED THAT THE MONESSEN PUBLIC LIBRARY COULD AT LEAST HELP ME TO LOCATE SUCH A LIBRARY, SO I WENT TO ASK. LADIES AND GENTLEMEN, THE QUESTION WAS NEVER ASKED!!!

I WALKED IN, ONLY TO FIND A BEAUTIFULLY EQUIPPED, PLEASANTLY STAFFED LIBRARY, COMPLETELY CAPABLE AND WILLING TO ASSIST ME IN MY JOB SEARCH.

THE PROGRAM COORDINATOR FOR THE WORKPLACE CENTER, CAROL SEPESKY, HAD BEEN FULLY TRAINED TO ASSIST INDIVIDUALS AND GROUPS TO UTILIZE THE CENTERS' RESOURCES. THIS INCLUDED RESUME WRITING AND COMPOSING VIA COMPUTERS AND WORD PERFECT SOFTWARE; THE STAFF PROVIDED INFORMATION ON JOB OPPORTUNITIES BY WAY OF THE PA JOB SERVICE LISTINGS, EMPLOYMENT PERIODICALS(BOTH NATIONALLY AND LOCALLY) THE WALL STREET JOURNAL, AND MANY OTHERS.

THE MONESSEN PUBLIC LIBRARY WAS OPEN 65 HOURS A WEEK, SEVEN DAYS A WEEK, INCLUDING 5 EVENINGS, SIX MORNINGS, AND SEVEN AFTERNOONS. THIS WAS EXTREMELY ACCOMMODATING FOR MY SCHEDULE....AND I NEVER FELT THAT I HAD TO GO ANYWHERE ELSE TO ACCOMPLISH MY GOAL.

AS TIME WENT ON I DISCOVERED MANY OTHER WONDERFUL SERVICES THAT THE LIBRARY HAD TO OFFER. SOME WERE APPLICABLE FOR MY

USE, WHILE OTHERS WERE GEARED TOWARD HELPING THE UNDEREMPLOYED, THE FUNCTIONALLY ILLITERATE, DISPLACED WORKERS..... AND EVEN PROVIDES CAREER AND EDUCATIONAL INFORMATION THROUGH..PA CAREERS AND DISCOVER SOFTWARE,"LINKAGE" GROUPS SUCH AS THE PA DEPT. OF WELFARE; THEY PURCHASE DIRECTORIES, ACQUIRE COLLEGE CATALOGS AND VOCATIONAL AND BUSINESS SCHOOL INFORMATION. THE LIBRARY ALSO HAS A VIDEOTAPE COLLECTION OF LOCAL EMPLOYERS WHO DISCUSS JOB OPPORTUNITIES WITH THEIR FIRMS, INCLUDING REQUIRED QUALIFICATIONS,HOW TO APPLY, AND SOME OF THE QUESTIONS THAT MAY BE ASKED DURING THE JOB INTERVIEW. I COULD GO ON AND ON, BUT THE POINT IS, THIS KIND OF PUBLIC SERVICE MUST CONTINUE.

NOT ONLY IN MONESSEN, PA. BUT ALSO THE STATE OF PA,,,,AND THE NATION. I'M SURE THAT THERE ARE MANY TOWNS AND CITIES IN THE UNITED STATES THAT ARE SUFFERING FROM THE SAME HIGH UNEMPLOYMENT RATES, FUNCTIONALLY ILLITERATE AND.....LET'S NOT FORGET OUR KNOWLEDGE HUNGRY AND EDUCATION THIRSTY, WHO CAN'T AFFORD TO DO ANYTHING BUT TAKE ADVANTAGE OF THEIR LOCAL PUBLIC LIBRARY.

IN THE LAST YEAR ALONE, MONESSEN'S LIBRARY ASSISTED OVER 1000 PATRONS IN EACH, THE WORKPLACE AND THE COMPUTER ASSISTANCE SERVICES. NOT TO MENTION THAT THEY HAD WELL OVER 1000 PATRONS REQUIRING OTHER ASSISTANCE AND USING THE REFERENCE LOGS. STERLING PERFORMANCE!!!!

THE WORKPLACE PROJECT WAS FUNDED BY A GRANT FROM THE KELLOG CORP. OF BATTLE CREEK, MICHIGAN IN ORDER TO ASSIST INDIVIDUALS TO FIND JOBS. THE MONESSEN PUBLIC LIBRARY WAS CHOSEN AS ONE OF SIX ORIGINAL SITES IN PA BECAUSE OF THE HIGH UNEMPLOYMENT IN THE MON VALLEY AREA,,AND THE PROJECT WAS ADMINISTERED THROUGH THE STATE LIBRARY OF PENNSYLVANIA.

THE FUNDING FOR THIS PROJECT ENDED IN 1990, AND SINCE THEN THE LIBRARY HAS DEPENDED UPON DONATIONS FROM PATRONS, AND KIND CONSIDERATION OF AREA BUSINESSES.....BUT HOW MUCH MONEY COULD THEY POSSIBLY RAISE ON THEIR OWN IN AN ECONOMICALLY DEPRESSED AREA????? THEY AND ALL PUBLIC LIBRARIES NEED OUR HELP, YOUR HELP, AND THE HELP OF THE FEDERAL GOVERNMENT TO CONTINUE TO PROVIDE THESE EXCELLENT AND MUCH NEEDED SERVICES. THE LIBRARIES SHOULD BE CONSIDERED A NECESSITY, AND ON THE SAME LEVEL AS PUBLIC SCHOOLS.

MY JOB SEARCH ENDED IN NOVEMBER, '93.

ON THE NATIONAL LEVEL, NEWS OF LIBRARY CLOSINGS IS VERY DISCONCERTING TO ME, AND SHOULD BE UPSETTING TO EVERY CITIZEN OF THE UNITED STATES....FOR WHERE ELSE CAN WE ALL, REGARDLESS OF OUR FINANCIAL SITUATION, GO TO GAIN ACCESS TO INFORMATION ON EDUCATION OR JOBS. ISN'T THE MAIN GOAL, AND SOLE MISSION, OF PUBLIC LIBRARIES TO MAKE INFORMATION ACCESSIBLE AND AFFORDABLE?? WHEN WE HEAR OF OUR LIBRARIES' DECLINE, WHAT ARE WE REALLY HEARING?? I THINK THAT WE ARE HEARING LACK OF SUPPORT FROM BOTH STATE AND FEDERAL AGENCIES. WE ARE NOT HEARING OR WITNESSING LACK OF SUPPORT OR INTEREST BY THE CITIZENS OF THE U.S.! IT IS WRONG TO ASSUME THAT EARNING COLLEGE EDUCATIONS FROM THE RESOURCES OF THE PUBLIC LIBRARIES WENT OUT WITH ANDREW CARNEGI. OR THAT THE "HOW TO" OF SETTING UP A SMALL BUSINESS MUST BE LEARNED ON YOUR OWN. I WOULD BE WILLING TO BET THAT THERE ARE AT LEAST A DOZEN PEOPLE IN THIS ROOM WHO HAVE RECEIVED THEIR EDUCATION, OR ARE RUNNING A SUCCESSFUL SMALL BUSINESS, THROUGH THE AFFORDABLE SERVICES OF A PUBLIC LIBRARY.

FOR THOSE OF YOU WHO HAVE THE POWER AND INFLUENCE TO REVERSE THE CYCLE OF OUR LIBRARIES' DECLINE(BY WAY OF POLITICAL INFLUENCE) LISTEN TO THE VOICE OF THE PUBLIC. DON'T LOCK UP OUR BOOKS, DON'T LET THE BOOKS BECOME OUTDATED, AND DON'T LET THIS INTERNATIONALLY ENVIED, AMERICAN INVENTION, BECOME A DINOSAUR. IF WE DO, THE ONLY QUESTION TO ASK IS THE QUESTION ASKED BY WILLIAM ECENBARGER IN THE APRIL ISSUE OF THE READERS DIGEST..... "HOW STUPID CAN WE GET ??"

The Role of Libraries in the Emerging Information Highways, Pennsylvania's Experience

James S. Fogarty, Ph.D.
Director of Curriculum & Technology
Project Consultant to
Commonwealth Libraries
Schuylkill Intermediate Unit

Mr. Chairman, members of the Committee, good morning. My name is James S. Fogarty, Ph.D. I am Director of Curriculum and Technology for the Schuylkill Intermediate Unit, a regional educational service agency in Mar Lin, Pennsylvania. In my job, I also serve as the Consultant to two of Pennsylvania's largest technology projects run by the Department of Education and Commonwealth Libraries.

The first project, the ACCESS PENNSYLVANIA Database, electronically combines the card catalogs of 1,141 school, public, academic, and special libraries onto compact laser disc (CD-ROM). Each year we train about 1,400 librarians, media specialists, and others to use this database. These individuals, the trainers, go out and train students, teachers, library patrons, and others to use it. This "train the trainers" model has worked well for us for almost nine years. Eighteen million library holdings have become directly findable by library patrons, and instruction on how to search the database occurs in 94 percent of Pennsylvania's school districts.

Training is the reason that the project is successful. For the emerging information highways to succeed, training must be provided for all of the users so that people can learn to use the technology in a meaningful way.

The second project we have helped implement is the Pennsylvania Electronic Mail/ Internet Project. It grew from the vision of our Commissioner of Libraries, Sara Parker. She wanted libraries in the Commonwealth to have a system of electronic communications and full access to the resources of the Internet. By providing LSCA funding, we now have

214 school, public, academic, and special libraries connected. We trained almost 600 library/media people to access the Internet and to use its resources. We learned a great deal from this experience which may be of help in National planning.

The first lesson was that the training needs of the trainers themselves, varied greatly. Trainers with extensive computer experience did a better job of teaching others to use the Internet. But even the experts found some parts of the Internet difficult to use. **Using the Internet must be made easier for everyone**.

We learned that the computer abilities of the patron also varied greatly and suggest that a successful federal program must be ready to deal with the varied backgrounds of the end-user. This can't be a highway for just the computer experts. **Everyone who uses the information highway will need training**, and the federal government must consider this fact in its planning. **The library/media centers of this Nation should serve as the access points where that training will occur**.

Technologists dazzle us with the glitter of the technology. If you remember anything from me today please let it be this: **It is not the technology itself, it is what you do with it that is important**. I am suggesting to this committee that the same principle be applied to the information highways. To accomplish the dreams, **we need a program, not just a technology**. A program implies a vision, goals, objectives, activities, training, and evaluation. Without such a federal vision and program, the information highways will be nothing more than a giant electronic department store catalog and home shopping service. That is fine for business, but is of limited social value.

The next lesson learned from our Internet project was a plain and simple one. **The Internet needs librarians to organize it**. Presently, there is no standard method of classifying information so that people can find anything. Our Library of Congress provides this leadership role for all libraries, but that influence is not strongly evident on the Internet because computer people, like me, are doing the classifying. Imagine searching for information about the birth of our Nation when one computer person listed it under Philadelphia, another under Phila., and a third under City of Brotherly Love, then listed the related articles under the names Washington, George Washington, Father of our Nation, or did not list them at all. A librarian would never do that! But, that is what the majority of the Internet is like today.

I really hope that my computer guru counterparts can understand the desperate need we have for the library community to apply its professional skills to the problem. They can get and keep all this information organized, so that people can find it and use it in an intelligent way. The current tools for searching the Internet lack this organizational structure. We want the federal government to help build the information highways of the future. But **we must let the library community be the cartographers, the map makers of the information highway system** so that the average person can get to all the places he or she needs to go, obtain what is needed and return home again, without getting lost.

The final lesson. A large part of our expenditures in the project went to pay the costs of the phone calls that connected the libraries to our Internet provider. We need to find alternate, inexpensive on-ramps to the information highway. From the birthplace of cable television, Schuylkill County, Pennsylvania, I urge you to **consider the role that cable can play in providing the on-ramps for libraries**.

Thank you for this opportunity.

PRESS RELEASE HIGHLIGHTS — James S. Fogarty, Ph.D.

- For the information highways to be successful, training is required for all users so that people can learn to use the technology in a meaningful way. The Nation's library/media centers should serve as the access points for that training.
- There is too much focus on the technology of the information highways. The focus must be on a new vision and goals in the form of a national program. "It is not the technology, it is what you do with it that is important." Without a federal vision, the information highways will be nothing more than an a giant electronic shopping center.
- The Internet lacks clear organization and is not easy to use. The Internet needs librarians to organize it. "Let the library community be the cartographers, the map makers of the information highways."
- Consider the role that cable can play in providing inexpensive on-ramps to the information highways for libraries.

BEST COPY AVAILABLE

Testimony of Beverly Choltco-Devlin
Director, Morrisville Public Library
Project GAIN Site Coordinator
for United States Senate Hearing
April 19, 1994

This testimony is true and not so different from what might emanate from any number of public libraries across the United States. The problems and, more importantly, the potentialities are very real. Though this voice is a small one it speaks passionately and strongly for many. I would only ask that you listen thoughtfully and carefully enough to see the power for change that you can effect.

REALITIES AND POTENTIALITIES

In September of 1992, the Morrisville Public Library in central New York State was in serious danger of closing its doors. The village of Morrisville and the surrounding town of Eaton typify the rural environment of America in the 90's. The main industry in this area is dairy farming and the community, due to its physical isolation and poverty, is not yet the beneficiary of the economic recovery. The borders are yet a bit too far.

As a result of the fiscal straits experienced by the village and town and many like them across central New York (and indeed the country), the community, while sincerely funding the library to the best of its ability, was unable to keep pace with the rising costs of operations. As a consequence, hours were curtailed and the death knell reverberated in the not-to-far distance. To add to the burden, the previous director chose to retire. The library, through the sheer determination of its Board of Trustees, one quarter time staff member and volunteers, struggled through the winter months of 1992 on reduced hours, with staff and volunteers wearing extra sweaters to keep warm, turning lights on only when a patron was using a particular room, shutting off the hot water, and delivering overdue notices in person to save postage.

In January of 1994, the Board hired me as the new director, and shortly thereafter word of Project GAIN (Global Access Information Network), a pilot project and study which would connect 5 rural libraries and one Native American School to the Internet, was brought to my attention. This project would provide all hardware and software necessary for connectivity, a year of full Internet access, access to 6 commercial online bibliographic databases and a set stipend to cover telecommunications charges. The purpose of the project was to determine if a small rural library, without the financial resources to do so on their own, were given all the means to have access to the Internet, would there be a beneficial impact on the community. I jumped at the chance and applied for participation as a project site. Fortunately, we were selected to participate and in July of 1993 (less than a year ago) our connection to the rest of the world began.

The story of the journey of our library's near-death experience to its burgeoning capacity for positively impacting the community (and, as you shall see, the world) can be directly traced to our participation in this project.

The findings of the study have shown Project GAIN to be a remarkable success. The degree of positive impact that our participation in this project has had on our library, our community, and indeed the global community could not have been foreseen and is truly remarkable. Indeed the benefits are still unfolding on a daily basis. Following are a few of the many examples of impact. While we are still fiscally prudent, the library is now thriving and well.

Morrisville - Literacy

A wondrous and miraculous thing has occurred as a direct result the Morrisville Library s participation in Project GAIN. In addition to my role as director of the Morrisville Library, I have also been a Literacy Volunteer for 5 years. I received my training through a course offered by the library. My student, a 51 year old dairy farmer, somehow managed to get through the 9th grade with less than a first grade reading level. When he first came to me he quite literally could not read a single sentence. We had been working together for a little while when I felt it might be a good idea to have Glenn do some of his homework on the computer. He began by writing simple stories only a few sentences long. While he still had quite a way to go to become a proficient reader, working on the computer seemed to increase his self-esteem.

One night last August the serendipitous idea struck me that we should send out a request on PUBLIB (a listserv for public library issues) for other new adult learners for Glenn to correspond with. Glenn composed a short email message introducing himself and magic happened. The response was overwhelming. We received many replies from new learners and also from others offering to be mentors. Glenn is currently writing to several new learners across the country and is even writing to a man from Brazil who is learning English. He has become a type of mentor to students who have only just begun to read and has agreed to relinquish his anonymity to help others in his situation.

A search for an electronic discussion group about Literacy issues surprisingly revealed that none existed. In an effort to fill a void that obviously needed filling, I am now the moderator of two electronic discussion groups devoted to literacy (thanks to NYSERNet s generous offer to sponsor them). LEARNER is a group for new learners to write to one another to practice their developing skills and to establish keypal contacts and, most importantly, to have the chance to "talk" with someone else in their same situation. In a rural environment where people are so isolated from one another, this capacity to communicate with other people who have made the brave decision to overcome their inability to read is especially critical.

LITERACY is a forum for the discussion of literacy issues by anyone who is interested. The value of these types of forums cannot be underestimated. If given access, a person who is learning to read is not only developing reading literacy skills but computer and network literacy skills as well: all three skills are critical for productive participation in the information age.

The remarkable results of Glenn s courageous posting that one evening in August show that not only is access critical for the benefit of the rural community but it also shows how we can contribute to the larger global community.

- **Reference**

Because our resources are so limited (our total operating budget, including salaries was $20,000 in 1993), an up-to-date reference collection is difficult to maintain. Our connection has become my reference tool of first choice. By simply logging on I was able to assist patrons in finding information on a wide variety of topics. In many cases and after some training patrons are able to access the requested information themselves. A few examples of our many successes include:

> --A patron and I were able to locate information by the FDA on the tools used in an atheroscopy and angioplasty, two procedures he was scheduled to undergo. The patron related to me that he felt much more

informed about his condition and that he was able to talk to his physician in an intelligent and informed manner

--A young teenage girl came in and asked for information regarding bulimia and anorexia. We were able to find several items for her

--I was able to locate information regarding bacterial contamination of milk for an attorney working on a case for a local dairy farmer

--I was requested by the village and town boards to look for grant possibilities which might be of benefit to our community and I do periodic searches for the village and town boards on a variety of topics after attending the meetings

--A county judge who had for several months unsuccessfully attempted to track down an elusive newspaper article from 1870 for a presentation he was doing came to our library as a last resort. (He had already tried two university libraries) Because of our access to the online bibliographic databases I was able to locate what I thought might be the article he was looking for at 3 universities nationwide. With a mixture of trepidation and excitement I called the University of Virginia and asked them to fax me a copy of the article. My patron had the article in his hands within a day

--An elderly patron was concerned about a mysterious condition affecting his lips. A search of research articles resulted in a series of studies showing that a particular medication the patron was on could cause photosensitivity resulting in inflammation of the lips. The patron was able to download the information, take it to his doctor, and have his prescription changed

--A middle school student needed up-to-4date information regarding Mauritania. With assistance the student was able to download the latest information provided on this country in the CIA World Factbook

--A business professor was able to locate information for one of his students regarding economic conditions in former Eastern Bloc countries via the Economic Bulletin Board

- **Communication**

Living in a rural community often prevents communication and exchange of ideas with others because of physical and cultural isolation. Because our library offers direct patron access to the Internet, the people in our community have been able to communicate with others throughout the world on a variety of topics. Because communication is an interactive process, our community members have taken advantage of the access they have to both receive information and, as importantly, *provide* information to the larger global community. Because of our connection, members of our community can simultaneously experience and relate both uniqueness and common experience shared by all human beings.

Several patrons have subscribed to different "Listservs" (electronic mail discussion groups) and monitor them on a regular basis.

--One of our patrons, an adult survivor of child abuse, was able to find a usenet discussion group on this topic and now has an "electronic" support group.

--Another elderly man was an active ham radio operator but is now almost completely deaf. He is able to correspond with other ham operators by email.

--A local journalist has subscribed to a writers' listserv and contributes to it regularly.

--Children as young as age seven have developed written relationships with 'keypals' (electronic mail penpals).

--a local resident is able to correspond via email on a regular basis with his brother who is currently working in Denmark.

Our connection has helped to facilitate communication between myself and other librarians through participation in electronic mail and discussion groups (Listservs). This capability has assisted me in my professional development and has helped me to become a better librarian.

In fact our electronic connection facilitiated the development of a cooperative grant proposal between our site and one of the other Project GAIN sites. The entire planning process took place electronically using email and fax capabilities provided with our connection.

· **Cooperation**

Our connection has helped to bring about a greater spirit of cooperation between different community groups and institutions.

--Our local school system does not have Internet access as of yet. We have helped the school by forwarding much information of an educational nature to them. For example, our students are participating in a pilot project to learn Japanese, and I was able to provide them with additional cultural information about Japan. I have done demonstrations for the Middle School (curriculum studies), the High School Seniors for career day. I was able to show them the many Campus Wide Information Systems available online and scholarship and grant resources. Many students were also interested in the Job Listings which can be found online.

--I also did a demonstration for the Rotary Club and was able to point them to many resources regarding business which are available.

--I do periodic searches for the Youth Commission, the Village and Town Boards teh Rotary Club, and the Cooperative Extension.

· **Community**

Because of the increased visibility which the library has received as a result of our connection and the incredible amount of use which has taken place, discussion has taken place regarding the potential development of a Community Net. Our Project GAIN connection has acted as a catalyst and motivating force behind a new and revitalized 'can-do' attitude in our community. The library is increasingly becoming an Information Resource Center. As a result of the many demonstrations for groups and training sessions, community organizations are asking to meet in the library. For example the Youth Commission met at the library this past week. One significant component of the meeting included developing an electronic newsletter which the young people in the community could put together. 'Keypals' will be a major component of the summer youth program with the older children helping the younger to compose email messages. The Garden Club also chose to meet in the library this year. At the

next meeting I will be giving a demonstration of the many Community Nets which have an electronic "greenhouse." Many have expressed an interest in setting up our own community network.

As previously noted, one of the most significant problems regarding rural access involves geographic isolation. The interest shown in our connection has been so incredible that I have had to put up a schedule sheet as I often have patrons waiting in line.

The next natural step and one which patrons have been requesting is dial-in access to our connection. It is especially important that members of a community which is widely spread out geographically, especially those who are homebound or cannot get to the library itself (i.e., children, the disabled and the elderly) have the same access to information as their more mobile counterparts.

- **Increase in Funding**

As a result of the library's revitalized position in the community which was effected by our participation in Project GAIN, the library received a modest increase in funding from the Town of Eaton this year. Members of the Board came up to me personally after the meetings and expressed to me that they wished that it could have been even more.

Barriers to Access

The previous testimony has unequivocally shown that there is a critical need and demand for electronic access to information in a rural setting. It is even more evident that people living in a rural environment are physically, culturally and intellectually isolated from each other and the rest of the world. Project GAIN has shown that connectivity provides an excellent way to alleviate that isolation. Rural dwellers must be given the opportunity to participate fully in the Information Age. It is a logical and natural conclusion that the public library is *the* institution of choice to function as the "safety-net" for electronic access to information. Public libraries have traditionally been the one government sponsored institution which has the potential to benefit each and every member of the community, young or old, rich or poor, educated or not. As can be seen from the examples given, connectivity to the information superhighway in the public library can provide assurance of such access.

A reality check will show that the successes highlighted above have not come effortlessly. The findings of the study show that there are definite barriers to access which must be addressed in order to ensure equal access of all people in the United States to the Information Superhighway.

Such barriers to access include:

- Telecommunications Issues

Morrisville Library's participation in Project GAIN was much more successful than even I imagined (and I had quite high hopes for the project). Patrons came in to use our connection on a daily basis, either directly or through mediated access. Because our site was required to dial-in to a Point-of-Presence (POP) in Syracuse to make the connection and due to the amount of traffic we were generating, our library was incurring long distance phone charges of at least $150 - $200 per month. This amount represents a substantial percentage of our operating budget and absorbing this figureinto our operating cost would present significant problems.

BEST COPY AVAILABLE

- Training

Proper and ongoing training is crucial to the success of a project like Project GAIN. One can be given the most expensive and state-of-the art hardware, software and access, but unless one knows how to use the tools, the access is meaningless. Fortunately we had the benefit of training in aworkshop format both at NYSERNet and through on-site visits. The most beneficial training took place via daily email contact with the support staff provided by NYSERNet. Most libraries will not receive this level of support.

In addition, I chose to provide direct patron access to the Internet at the Morrisville Library. I firmly believe that public libraries must serve a two-fold function if they are serve as the "safety-net." Libraries must, of course, provide access to information either through direct or mediated means. I feel also that a critical component of fulfilling the safety-net role involves education. This is especially crucial in our rural environment, where many patrons are so poor that they cannot afford computers in the home or courses at a college. To fulfill that role, we offer workshops, individual tutoring, and demonstrations to groups who are eager to learn more about the "information superhighway." Unless there is a commitment to such training both for staff and patrons, access will necessarily be limited.

- Time

Our site is staffed only by myself and my assistant. Learning to use the connection, training patrons in the use of the connection, and providing Internet based services to the Internet all have to be accomplished while maintaining the existing services. These requirements take time, and while I feel the resulting benefits are more than worth the time put into the project, the issues must be addressed. The implementation of the connection was an add-on duty. At our site we did not discontinue any of our services as a result of our connection. Instead, many of the routine duties were reassigned to volunteers or performed less frequently. Time management, especially in a poor underfunded library, is of paramount importance. However, the benefits to our library because we did make that time commitment have been incalculable.

- Type of Equipment

Our grant provided Macintosh computers and because I was previously comfortable with the Macintoshes the use of such a platform was not an issue for me personally. However, it was an issue for many of my patrons, my co-coordinator, and quite a few of the other sites. People who were only comfortable with IBM-compatible computers had to first learn a new operating system before they could do anything constructive with the Internet itself. I spent quite a bit of time giving lessons to patrons on using the Macintosh before we were ever able to log on. The findings of the study and my own personal view is that one of two things must exist: there must be complete training in the platform chosen as the vehicle for access to the Internet or multiple platform access must be offered. Although I prefer the Macintosh platform for myself, I feel that in order to truly provide equal access effectively and efficiently, the latter scenario is the more reasonable and workable one.

In addition, more than just text is available via the network and my patrons are requesting access to that information. Images and graphics are commonly needed and fortunately for us we were given the software and hardware which allows us to fully access such resources. However, through my experience and speaking with many others who have access, this is not always the case. It is

critical that libraries be provided with "user friendly" equipment and software. On a specific note, it is also critical that the monitors be large enough or font size have the capacity to be increased to accommodate the needs of our visually impaired patrons.

- Access to the Computer

Our connection has been so popular that I often have patrons waiting in line to use it. I have had to set up a schedule sheet for patron use and training sessions. Our hours of operation are still somewhat limited because of budget considerations and there seem to be peak times for use. Often I must tell the patrons to come back later. Because I am often the only person on duty I conduct the training sessions on my day off so that we won't be interrupted. Multiple access points (preferably multi platform) are a critical need.

-Complexity of the Internet

Because the Internet is so new in terms of public access and because resources are being added on a minute by minute basis, there is a great deal of complexity and lack of true organization in the electronic world. I am still often overwhelmed by the multi layered maze like quality to the net. Navigating the resources without proper training can be "frustrating and intimidating" (McClure, p.29).

- Need for Full Text

When one is working with a resource as powerful and complex as the Internet, there is the danger of expecting it to be many things that it hasn't become yet (though there is definite movement in some of these directions). Many of my patrons expect that they will be able to download full-text information on any given source. I was able to download the entire "Song of Hiawatha" for one of our older patrons who wanted to use is a part of a birthday present for her husband, but the unrealistic expectation is that I can do that for any work.

Complex copyright and access issues must be addressed concerning full-text provision.

- Geographic Isolation

As previously noted geographic isolation is one of the most significant barriers to access of information in a rural environment. Our connection has significantly reduced the implications of that barrier, but it is only part of the story. Lack of an effective public transportation system often prevents community members from getting to the library itself. With increasing proliferation of computers in the home, provision of remote access to our facility is a constant request. As the information resource center in our community, it would be a logical and effective step to have dial-in capability to our connection.

- Continuation of Connection

Finally, the most important and frightening barrier to access will come when the project ends in June and our connection is terminated. Unless other funding is obtained all of the remarkable stories such at those previously testified to will abruptly cease. The good work will end. My patrons will be disenfranchised and will once again become part of the information have-nots. Our local funding sources are supporting us to the best of their ability but are realistically unable to maintain the connection to it full capacity. The reality is that in June the our voice to the world will be silenced.

Breaking Down the Barriers

The rural community has much to offer the world. While many speak of access solely in terms of what can be downloaded or received I prefer to think of access as a more fluid dynamic process in which we can give to the world as well as receive. Without our connection my Literacy Student might not be able to continue his encouragement to other new readers to continue their studies. The world might never learn that the Morrisville Library houses original documents and manuscripts regarding the abolitionist movement, Gerritt Smith, John Brown and the Civil War. An adult survivor of child abuse in another state might never benefit from the experience which my patron generously shares with the Usenet group.

While there can be no one solution to the many barriers to access there are many possibilities and requirements which can be effected if vision and a true sense of the necessity for equal access in the maintenance of a democratic society are embraced. Some of these include:

•The telecommunication barriers in a rural setting must be dealt with. Some suggested solutions include:

--Points-of-Presence must be locally available.

-- Exploration into the elimination of LATAUs for network connections and educational use is one option. (Polly, J.A.)

-- Reliable and cost effective connections (a minimum of 56kbps). (Polly, J.A.)

* Recognition and utilization of the skills and commitment of professional information providers, i.e. librarians.

-- Professional librarians are currently being trained in a variety of technological areas including bibliographic instruction, online database searching, network management, setting up LANS.

-- As service professionals they are trained and strategically positioned to bridge the gap between technology and the user.

-- The library professionals' expertise in the organization and classification of information should be brought to bear in bringing some order to the admittedly sometimes chaotic state of the Internet.

* Given the above, recognition of the public library as the most logical place for providing public access and education regarding electronic connectivity.

* Facilitation for strong training programs. The most modern highway system in the world is useless if people don't know how to drive.

* Provisions for "user friendly" on site infrastructure including hardware and software. That same highway will sit idle if users don't have access to vehicles.

* A commitment by government to use of the super highway by the local public sector. For example 20% bandwidth allotment for local programming.

* Assistance in funding small pilot projects such as Project GAIN to ensure that rural areas and other disenfranchised communities are given full participation in the Information Age.

* Exploration of the development of community networks. The federal government has made a forward thinking and visionary philosophical commitment to equal access to the information highway. It is imperative that a fiscal commitment be made as well. It is hoped

that this testimony has shown what a small poor library in the middle of dairy country can do if a positive attitude and the resources to try are in place.

Please help give other communities the same opportunities. Such an investment can only help foster full realization of the potential that each person in this country can reach. Help the magic to continue.

McClure, C.M. etal. The Project GAIN Report Connecting Rural Libraries to the Internet Information Management Consultant Services, Inc., 1994.

U.S. NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE
Jeanne H. Simon
Chairperson
Statement
"Library Roles in the Information Infrastructure"
Subcommittee on Education, Arts, and Humanities
U.S. Senate
10:00 am
SD-430
19 April 1994

Thank you for the opportunity of submitting this statement today as Chairperson of the U.S. National Commission on Libraries and Information Science.

This hearing on "Library Roles in the Information Infrastructure" is both timely and important. America's libraries constitute a critical element in the daily life of our National community. Like the highways, roads, and bridges which we use daily, the American public depends upon libraries for access to information.

Our public, academic, school, state, and special libraries exist to satisfy people's need for information, knowledge, wisdom, and delight. To continue to fulfill our society's need for information in the future, libraries must be a key part of the emerging National information infrastructure. Our libraries must continue to provide opportunities for access to advanced information services, as well as places for us to find books, conduct research, to attend childrens' story hour, and to participate in community programs.

Many in the library community were encouraged to hear President Clinton mention libraries in his State of the Union Address this past January. The President said:

> *"...we must also work with the private sector to connect every classroom, every clinic, every LIBRARY, every hospital in America into a national information superhighway by the year 2000."*

The President's strong statement came following Vice President Gore's remarks at UCLA in early January, outlining the Administration's vision for creating the National Information Infrastructure.

The Vice President recently reinforced the Administration's commitment to providing hospitals, libraries, and educational institutions with connections to the data highway at low cost. At a Public Interest Summit meeting here in Washington on the 29th of March, Vice President Gore stated that universal access to the information infrastructure is a high National priority. He also stated that the Administration will aim to develop a system for tomorrow which will work like the Internet of today where customers will be able to receive and send information over the information superhighway.[1]

The National Commission is excited and encouraged about the potential for libraries in the vision of a National information infrastructure serving all Americans.

But we must identify what is needed to realize this vision. The following questions are of concern to the National Commission.

- What barriers must be overcome for libraries to continue to serve our democratic society effectively in the information age?

- How well prepared are America's libraries to serve as public access ramps to the information superhighway?

- What will libraries have to pay for access to the information superhighway?

- What training will librarians and patrons need and how will this training be funded?

- What kinds of information superhighway services will libraries provide for patrons?

- What Federal funds are needed to connect libraries to the electronic highway?

With the commitment of the Administration, the support of Congress, and the participation of the communications, cable, and media industries, we could well see significant advancement for libraries in the next decade.

Or, we could see the role of libraries diminish with the advent of a commercial multimedia interactive information marketplace. The challenge is to understand the role that libraries must play in this new information superhighway. The challenge is also to identify the Federal in support of libraries in the information age.

Librarian of Congress Jim Billington expressed the challenge well earlier this year. He said:

> *"Policy Makers must determine how to sustain, in the electronic age, the Democratic and equal access to information that free public libraries have provided in the age of print."*

---

[1]Wilson, David. "Vice President Gore Says National Data Highway Must be 'Open and Accessible to Everybody'." In Chronicle of Higher Education, April 6, 1994. p. A28.

The National Commission has been actively considering issues related to the role of libraries in the National information infrastructure. This morning I want to share the results of the Commission's work in identifying the Federal government's role in providing the library "on ramp" to the information superhighway. The Commission is completing a survey of public libraries and the Internet which addresses recommendations made at the 1991 White House Conference on Library and Information Services (WHCLIS) which call for the development of national "information superhighway" network to "...be available in all libraries and other information repositories at every level."

The preliminary findings from the Commission's public libraries and Internet survey indicate the following:

• those libraries located in communities serving smaller populations are less likely to have Internet connections;

• the interest of public librarians and state-based planners is critical in the development of Internet connectivity;

• the majority of public libraries surveyed see that the Federal government has a role in connecting public libraries to the Internet.

These findings will have important public policy implications for issues of equity, network literacy, connectivity, affordability, and access. The issues will be discussed in the project final report available later this Spring. Copies of the final survey report will be provided to Congress and the President in a few weeks.

We are making good progress in analyzing the returned surveys from 1,495 sent to a selected sample of public libraries throughout the country in early January. The Commission received the assistance of the Department of Education's National Center for Education Statistics and the 50 State libraries in contacting public libraries for this survey. 75% of the surveys have been received. The preliminary results show the following:

A) In response to the question "Is your library connected to the Internet in any way?" 20.9% responded YES, and 79.1% responded NO.

B) Initial analysis of the survey responses indicates that public libraries serving larger populations have a greater chance of being connected to the Internet than those serving smaller populations:

77% of libraries serving populations of over 1,000,000 have Internet access.
64% of libraries serving populations of 500,000 – 999,999 have Internet access.
76% of libraries serving populations of 250,000 to 499,999 have Internet access.
54.4% of libraries serving populations of 100,000 – 249,999 have Internet access.
43.7% of libraries serving populations of 50,000 – 99,999 have Internet access.
27.6% of libraries serving populations of 25,000 – 49,999 have Internet access.

BEST COPY AVAILABLE

23.2% of libraries serving populations of 10,000 – 24,999 have Internet access
12.9% of libraries serving populations of 5,000 – 9,999 have Internet access
13.3% of libraries serving populations of under 5,000 have Internet access

C) In response to a question about the importance of various factors affecting current public library involvement with the Internet the following priority summarizes the average ranking:

I Costs of getting connected to the Internet
II Availability of staff time to develop Internet expertise
III Availability of training on the Internet and its uses
IV Staff skills to "navigate" the Internet
V Costs of software
VI Costs of hardware
VII Availability of in-house technical expertise
VIII Level of community interest
IX Degree of interest of governing body

D) In response to a question about the importance of the Federal role in public library use of the Internet the following priority summarizes the average ranking:

I Connecting libraries to the Internet
II Support for purchase of equipment
III Support for research and development
IV Training assistance

E) In response to a question about what role public libraries should fulfill in the Internet, the following priority summarizes the average ranking:

I Public libraries should provide Internet-based services to library patrons
II Public libraries should serve as a safety net for public access to the Internet
III Internet services provided through public libraries should be without charge to the patron
IV Future monetary support for public libraries is integrally linked to the development of the Internet

F) Initial analysis of the survey responses indicates that an average of 16.1% of public libraries using the Internet have public access terminals:

8% of libraries serving populations of over 1,000,000 have public access terminals
30.1% of libraries serving populations of 500,000 – 999,999 have public access terminals
10.1% of libraries serving populations of 250,000 to 499,999 have public access terminals
17.5% of libraries serving populations of 100,000 – 249,999 have public access terminals
10.3% of libraries serving populations of 50,000 – 99,999 have public access terminals

BEST COPY AVAILABLE

9.3% of libraries serving populations of 25,000 – 49,999 have public access terminals

16.3% of libraries serving populations of 10,000 – 24,999 have public access terminals

20.6% of libraries serving populations of 5,000 – 9,999 have public access terminals

19% of libraries serving populations of under 5,000 have public access terminals

Among the various issues which will be addressed in the report resulting from the NCLIS survey are the following:

Building the National information infrastructure
Developing cooperative ventures with NII participants
Providing a societal safety net
Becoming network literate
Connecting to the information highway
Developing network applications
Providing electronic government services
Evaluating network services
Preserving copyright/intellectual property rights
Discrepancies in access to telecommunications services
Pricing networked services
Allocating adequate resources for public library NII participation

The survey of public libraries and Internet was done in accordance with a 1991 amendment to the 1970 law establishing the National Commission which is P.L. 91-345 (July 20, 1970). The amendment authorizes the Commission to...

> " promote research and development activities which will extend and improve the Nation's library and information handling capability as essential links in the national and international communications and cooperative networks."

Proposals for library involvement in the information superhighway are currently under consideration by Congress and the Administration. Federal policy makers need to decide on programs for purchase of computer equipment, to establish reduced telecommunications charges, and to train library staff and patrons. These decisions require current National data about public libraries and the Internet to formulate National policies and practices that extend library-based information superhighway services to all areas of the National community.

In addition, proposals are under discussion for reauthorizing the Library Services and Construction Act (LSCA) to enable libraries to use Federal funds for Internet connections. Analysis of the NCLIS survey results will review Federal policy alternatives. With the rapid pace of information superhighway development, we need this information quickly to make informed decisions.

The NCLIS survey project was also developed in direct response to a question raised at a July, 1993 policy discussion meeting held at the Library of Congress. At this meeting, Vice President Al Gore asked to what degree public libraries can serve as a "safety net" for access to Internet information and services. The Vice President also raised issues related to how the Internet could provide better social equity for the public.

The purposes for performing the Commission's survey of public libraries and the Internet were:

1) to conduct a sample quick-response National survey of U.S. public libraries to determine the nature, extent, and type of public library involvement with network services available from the Internet; and

2) to perform a policy analysis of the impact of the Internet and networked services on the U.S. public library community. This analysis will provide the library, information sciences community, and Federal policy makers, with baseline information from which current policy initiatives related to libraries and the Internet can be assessed and from which new initiatives can be proposed to facilitate the extension of information infrastructure services to all Americans at reasonable cost.

In response to a survey question asking for favorite stories about Internet successes and frustrations, the following were offered:

"We are still too awestruck to get frustrated!"

"Computer people should be burned at the stake, with software manuals used exclusively for fuel!!"

"A library staff member used Internet to locate a copy of the constitution of Macedonia (one of the new countries formed from the former Yugoslavia) for a customer interested in property rights in that country."

"A library staff member used the Internet to locate the third quarter US gross domestic product. Our printed copy only gave it for the second quarter."

"The copyright file at the Library of Congress provided us with verification of an unusual cartoon character that we had been unable to locate in our print sources."

These stories of the uses public librarians are currently making of the Internet offer a glimpse of the service and resource potential available with the arrival of the information superhighway.

Social equity can be improved by strengthening the role of the public library in our communities. Library on-ramps to the information superhighway can expand and enhance access to the educational, intellectual, and cultural resources available in the Nation's libraries. The electronic information highway can connect public library patrons to academic, research, school, and state library resources.

University libraries are already working to make their rich resources accessible electronically to public and school libraries. Such cooperative activity among libraries includes resource sharing, preservation, education, and training, with a particular focus on network-based applications. Libraries of all types need to link patrons to the full range of services available through the information superhighway. The key is to maintain and enhance these relationships among libraries to support access at the community level. Building on current programs and the existing library infrastructure will allow the library user to access the extensive wealth of educational and cultural resources.

But, just as National attention is focused on health care system reform, National support is needed for our libraries to enter the 21st century. We need Federal support to assure that all Americans, regardless of economic, cultural, or social status, or geographic location, will be granted access to the full range of services available on the information superhighway.

The information infrastructure offers the potential to improve our Nation's quality of life. America's intellectual heritage is too valuable to have the information superhighway bypass our libraries.

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE: STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Public Libraries Connected to the Internet by Library Service Population	
1 Million	77.0%
500,000	64.0%
250,000	76.0%
100,000	54.4%
50,000	43.7%
25,000	27.6%
10,000	23.2%
5,000	12.9%
Less than 5,000	13.3%
Total Libraries Connected	20.9%

[1] From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE: STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Public Libraries Connected to the Internet by Region	
Midwest	15.4%
Northeast	25.9%
South	16.6%
West	26.2%
Total Libraries Connected	20.9%

[1] From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE:
STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Public Libraries Connected to the Internet that Provide Public Access Terminals by Region	
Midwest	12.2%
Northeast	11.2%
South	26.3%
West	23.6%
Total Libraries Providing Terminals	16.1%

[1] From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE:
STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Public Libraries Connected to the Internet that Provide Public Access Terminals by Library Service Population	
1 Million	8.0%
500,000	30.1%
250,000	10.1%
100,000	17.5%
50,000	10.3%
25,000	9.3%
10,000	16.3%
5,000	20.6%
Less than 5,000	19.0%
Total Libraries Providing Terminals	16.1%

[1] From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE: STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Factors Affecting Current Public Library Involvement with the Internet	
	1=Very Important; 5=Very Unimportant
Costs of getting connected to the Internet	1.95
Costs of hardware	2.29
Costs of software	2.28
Availability of in-house technical expertise	2.43
Availability of staff time to develop expertise on the Internet	1.96
Availability of training on the Internet and its uses	2.05
Staff skills to "navigate" the Internet	2.06
Level of community interest	2.59
Degree of interest by governing body	2.59

1 From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE: STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Public Libraries' Rank of Federal Government Roles in Supporting Internet Access through Public Libraries	
	1=Most Important; 5=Least Important
Support for purchase of equipment	1.80
Training assistance	2.23
Support research and development efforts	2.21
Connecting libraries to the Internet	1.63

1 From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

THE ROLE OF PUBLIC LIBRARIES IN THE INTERNET/NATIONAL INFORMATION INFRASTRUCTURE: STUDY RESULTS, POLICY ISSUES, AND RECOMMENDATIONS[1]

Public Librarian Agreement/Disagreement with Public Library Roles in the Internet	
	1=Strongly Agree; 5=Strongly Disagree
Public libraries should provide Internet-based services to library patrons	1.70
Future monetary support for public libraries is integrally linked to the development of the Internet	1.86
Public libraries should serve as a safety net for public access to the Internet	1.74
Internet services provided through public libraries should be without charge to the patron	1.76

1 From: McClure, C.R. <cmcclure@suvm.syr.edu>, Bertot, J.C., and Zweizig, D.L. The Role of Public Libraries in the Internet/NII: Study Results, Policy Issues, and Recommendations. Washington, DC: National Commission on Libraries and Information Science (forthcoming).

[Editor's note: Due to the high cost of printing, the additional prepared statement submitted by Ms. Simon is retained in the files of the committee.]

Senator SIMON. We thank all of our witnesses. Our hearing stands adjourned.

[Whereupon, at 12:38 p.m., the subcommittee was adjourned.]

O

ISBN 0-16-044465-9

90000

9 780160 444654

80-218 (100)